

MODUL PRAKTIKUM

DATABASE ADMINISTRATOR



SOETAM RIZKY WICAKSONO

Database Northwind

1. Tampilkan data customer

```
select * from customers
```

2. Tampilkan data penjualan (Orders)

```
select * from orders
```

3. Tampilkan data penjualan dengan nama Customer

```
select OrderID, OrderDate,  
Customers.CustomerID,  
CompanyName from orders, customers  
where Orders.CustomerId = Customers.CustomerID
```

4. Tampilkan data penjualan dari tanggal pembelian terakhir

```
select * from Orders order by orderdate desc
```

5. Tampilkan data penjualan customer yang berasal dari USA

```
select OrderID, OrderDate,  
Customers.CustomerID,  
CompanyName, Country from orders, customers  
where Orders.CustomerId = Customers.CustomerID  
and Country='USA'
```

6. Tampilkan data kategori barang (categories)

```
select * from categories
```

Latihan :

1. Tampilkan data supplier
2. Tampilkan data supplier yang berasal dari USA
3. Tampilkan data barang (product)
4. Tampilkan data barang dengan nama supplier yang memasok
5. Tampilkan data barang yang sedang kosong stoknya
6. Tampilkan data barang beserta nama supplier dan kategorinya
7. Tampilkan data barang yang berjenis *Beverages*
8. Tampilkan data barang yang berjenis *Beverages* yang masih memiliki stok
9. Tampilkan data barang yang dipasok supplier dari Jepang
10. Tampilkan data barang jenis *Confections* yang dipasok supplier dari USA

Database Northwind

1. Tampilkan data pegawai (employee)
2. Tampilkan data pegawai yang berusia di atas 40 tahun

```
select * from employees where datediff(year,year(getdate()),birthdate)>40
```

3. Tampilkan data pegawai yang masa kerjanya di atas 10 tahun
4. Tampilkan data pegawai yang jabatannya paling tinggi

```
select * from employees where reportsto is null
```

5. Tampilkan total data penjualan dari tiap customer

```
select CompanyName, sum(quantity*unitprice) as Total from
orders,[order details],customers
where
orders.orderid=[order details].orderid and
orders.customerid=customers.customerid and
group by companyname
```

6. Tampilkan total data penjualan tahun 1998 dari tiap customer

```
select CompanyName, sum(quantity*unitprice) as Total from
orders,[order details],customers
where
orders.orderid=[order details].orderid and
orders.customerid=customers.customerid and
year(orderdate)=1998
group by companyname
```

Latihan :

1. Tampilkan data penjualan di tahun 1997
2. Tampilkan data customer yang pernah melakukan transaksi di tahun 1996
3. Tampilkan data barang yang pernah dibeli di tahun 1996
4. Tampilkan omzet penjualan barang jenis *Beverages* di tahun 1998

Database Northwind

1. Tampilkan data penjualan dengan keterangan diskon

```
select Orders.OrderID,
[Ada Diskon]= case
when discount> 0 then 'Ada'
else 'Tidak ada'
end
  from orders,[order details]
where
  orders.orderid=[order details].orderid
```

2. Tampilkan data customer dengan keterangan mendapat diskon dalam transaksi

```
select distinct CompanyName,Orders.OrderID,
[Ada Diskon]= case
when discount> 0 then 'Ada'
else 'Tidak ada'
end
  from orders,[order details],customers
where
orders.orderid=[order details].orderid and
  orders.customerid=customers.customerid
```

3. Tampilkan data transaksi dengan keterangan kategori transaksi *Big one* jika omzet transaksi lebih besar dari 1000 dollar.

```
select distinct CompanyName,Orders.OrderID,
[Transaction Status]= case
when sum(quantity*unitprice)> 1000 then 'Big one'
else 'Regular'
end
  from orders,[order details],customers
where
orders.orderid=[order details].orderid and
orders.customerid=customers.customerid
group by companyname,orders.orderid
```

4. Tampilkan total penjualan untuk kategori barang Seafood, Beverages dan Condiments secara mendatar

```
select 'Total' as 'Category',[Seafood],[Beverages],[Condiments]
from
  (
  select CategoryName,Quantity from
orders,[order details],products,categories
where orders.orderid=[order details].orderid and
  [order details].productid=products.productid and
  products.categoryid=categories.categoryid
  )
  as DataAwal
pivot
```

```
(  
    sum(DataAwal.Quantity) for DataAwal.CategoryName in  
    ([Seafood],[Beverages],[Condiments])) as temp
```

Database Northwind

1. Tampilkan data barang yang tidak pernah terjual di tahun 1998

```
select ProductName from Products where
productid not in
(
select Products.productid from orders,[order details],products
where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
year(orderdate)=1998
)
```

2. Tampilkan data customer dengan yang tidak pernah bertransaksi pada tahun 1997

```
select CompanyName from customers where
customerid not in
(
select customers.customerid from orders,customers
where
orders.customerid=customers.customerid and
year(orderdate)=1997
)
```

3. Tampilkan data barang yang tidak pernah dibeli oleh customer dari USA pada tahun 1998

```
select ProductName from Products where
productid not in
(
select Products.productid from orders,[order details],products,customers
where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
orders.customerid=customers.customerid and
year(orderdate)=1998 and country='USA'
)
```

4. Tampilkan data jenis barang yang tidak pernah dibeli oleh customer dari Spanyol pada tahun 1997

```
select CategoryName from categories where
categoryid not in
(
select categories.categoryid from
orders,[order details],products,customers
where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
orders.customerid=customers.customerid and
year(orderdate)=1997 and country='Spain'
)
```

Database Northwind

1. Tampilkan data customer dan total omzet penjualan masing-masing secara tabular

Format yang diinginkan :

Customer :

Omzet :

```

Declare @CompanyName as nvarchar(40);
Declare @Omzet as varchar(50);
Declare @Rows as int;
Set @Rows = 1;
while @Rows<=(select count(*) from customers)
begin
    Select top (@Rows) @CompanyName=CompanyName from Customers;
    Print N'Customers : ' + @CompanyName
    Select @Omzet=sum(quantity*unitprice)
           from orders,[order details],customers
           where orders.orderid=[order details].orderid and
           orders.customerid=customers.customerid and
           companyname=@CompanyName;
    Print '      Omzet : ' + @Omzet;
    Set @Rows = @Rows + 1;
end;
go

```

2. Tampilkan data omzet barang per kategori secara tabular

Format yang diinginkan :

Category :..... .

1. **Xxxxxxx** à **Omzet** :

2. **Yyyyyy** à **Omzet** :

```

Declare @CategoryName as nvarchar(15);
Declare @CategoryID as int;
Declare @ProductName as nvarchar(40);
Declare @Omzet as varchar(50);
Declare @Rows as int;
Set @Rows = 1 ;
while @Rows <=(select count(*) from categories)
begin
    Select top (@Rows) @CategoryName=categoryname from categories;
    Print N'Category : ' + @CategoryName;
    Select top (@Rows) @CategoryID=CategoryID from categories;
    Declare @Rows2 as int;
    Set @Rows2 = 1;
    while @Rows2<=
        (select count(*) from Products where CategoryID=@CategoryID)
    begin
        Declare @ProductID as int;
        Select top (@Rows2) @ProductID=productid,
                           @ProductName=productname from products
                           where CategoryID=@CategoryID;
        Select @Omzet=sum(quantity*[order details].unitprice)
              from orders,[order details],products where

```

```
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.productid=@ProductID;
Print cast(@Rows2 as varchar(5)) +
'. Product : ' + @ProductName +
' --> ' + @Omzet;
Set @Rows2=@Rows2 + 1;
end;
Set @Rows=@Rows + 1;
Print ' ';
end;
go
```


Database Northwind

1. Buat stored procedure untuk menampilkan omzet penjualan tiap barang per tahun

```

create proc ProductPerYear
as
    Declare @ProductName as nvarchar(15);
Declare @ProductID as int;
Declare @Year as varchar(4);
Declare @Omzet as varchar(50);
Declare @Rows as int;
Set @Rows = 1 ;
while @Rows <=(select count(*) from products)
begin
    Select top (@Rows) @ProductName=productname,
        @ProductID =productid from products;
    Print cast(@Rows as varchar(5)) + '. Products : ' + @ProductName;

    Declare @Rows2 as int;
    Set @Rows2 = 1;
    while @Rows2<=
        (select count(distinct year(orderdate)) from orders)
    begin
        Select distinct top (@Rows2) @Year=year(orderdate) from orders;
        Select @Omzet=sum(quantity*[order details].unitprice)
            from orders,[order details],products where
            orders.orderid=[order details].orderid and
            [order details].productid=products.productid and
            products.productid=@productid and
            year(orderdate)=@Year;
        Print @Year + ' : ' +
            'Omzet = ' + @Omzet;
        Set @Rows2=@Rows2 + 1;
    end;
    Set @Rows=@Rows + 1;
    Print ' ';
end;
go

exec productperyear
  
```

2. Buat stored procedure untuk menampilkan omzet penjualan tiap barang per tahun dengan parameter kategori

```

create proc ProductPerYearPerCat
    @CategoryName as nvarchar(15)
as
    Declare @ProductName as nvarchar(15);
    Declare @ProductID as int;
    Declare @Year as varchar(4);
    Declare @Omzet as varchar(50);
    Declare @Rows as int;
    Set @Rows = 1 ;
    while @Rows <=(select count(*) from products ,categories
        where products.categoryid=categories.categoryid and
  
```

```

        categories.categoryname=@CategoryName)
begin
    Select top (@Rows) @ProductName=productname,
        @ProductID =productid from products, categories
        where products.categoryid=categories.categoryid and
        categories.categoryname=@CategoryName;
    Print cast(@Rows as varchar(5)) + '. Products : ' + @ProductName;
    Declare @Rows2 as int;
    Set @Rows2 = 1;
    while @Rows2<=
        (select count(distinct year(orderdate)) from orders)
    begin
        Select distinct top (@Rows2) @Year=year(orderdate) from orders;
        Select @Omzet=sum(quantity*[order details].unitprice)
            from orders,[order details],products, categories where
            orders.orderid=[order details].orderid and
            [order details].productid=products.productid and
            products.categoryid=categories.categoryid and
            products.productid=@productid and
            categories.categoryname=@CategoryName and
            year(orderdate)=@Year;
        if cast(@Omzet as float)>0
        Print @Year + ' : ' +
            'Omzet = ' + @Omzet;
        Set @Rows2=@Rows2 + 1;
    end;
    Set @Rows=@Rows + 1;
    Print ' ';
end;
go

exec productperyearpercat 'Beverages'
exec productperyearpercat 'Seafood'
exec productperyearpercat 'Dairy Products'

```

3. Buat rangkaian prosedur untuk menampilkan data omzet customer yang tertinggi di tiap tahun

```

create proc MaxCustPerYear
    @Year as int,
    @CustomerID as nchar(5) output
as
    Select top (1) @CustomerID=customers.customerid from
        orders,[order details],customers where
        orders.orderid=[order details].orderid and
        orders.customerid=customers.customerid and
        year(orderdate)=@Year
        group by customers.customerid
        order by sum(quantity*unitprice) desc
go

declare @Cust as nchar(5);
exec maxcustperyear 1996,@Cust out;
print @Cust

drop proc highestomzet
create proc HighestOmzet

```

```

as
Declare @Rows as int;
Declare @CustomerID as nchar(5);
set @Rows = 1;
while @Rows<=(Select count(distinct year(orderdate)) from orders)
begin
    Declare @Year as int;
    Declare @CompanyName as nvarchar(50);
    Declare @Omzet as varchar(20);

    Select distinct top (@Rows) @Year=year(orderdate) from orders;
    exec maxcustperyear @Year,@CustomerID out;
    Select @CompanyName=companyname,@Omzet=sum(quantity*unitprice)
    from orders,[order details],customers where
    orders.orderid=[order details].orderid and
    orders.customerid=customers.customerid and
    customers.customerid=@CustomerID and
    year(orderdate)=@Year
    group by companyname;
    Print 'Year : ' + cast(@Year as char(4)) ;
    Print ' Highest omzet is ' + @CompanyName + ' = ' + @Omzet;
    set @Rows=@Rows+1;
end;
go

exec highestomzet

```

Database Northwind

1. Buat fungsi untuk menghasilkan rata-rata nilai transaksi per kategori, selanjutnya fungsi skalar tersebut digunakan untuk menampilkan data transaksi per kategori yang nilai transaksinya di bawah/atas rata-rata.

```

create function AverageSales
  (@CategoryName as nvarchar(15))
Returns Float
as
Begin
  Declare @Temp as float;
  select @Temp=avg(quantity*[order details].unitprice)
    from orders,[order details],products,categories
   where
    orders.orderid=[order details].orderid and
    [order details].productid=products.productid and
    products.categoryid=categories.categoryid and
    categoryname=@CategoryName
  Return @Temp
End

select ProductName,categoryname,quantity*[order details].unitprice as Total
  from orders,[order details],products,categories
   where
    orders.orderid=[order details].orderid and
    [order details].productid=products.productid and
    products.categoryid=categories.categoryid and
    categoryname='Beverages'
 group by productname,categoryname

select dbo.averagesales('Beverages')
select Orders.OrderId,OrderDate,
  ProductName,quantity*[order details].unitprice as Total
  from orders,[order details],products,categories
   where
    orders.orderid=[order details].orderid and
    [order details].productid=products.productid and
    products.categoryid=categories.categoryid and
    categoryname='Beverages' and
    quantity*[order details].unitprice>dbo.averagesales('Beverages')

```

2. Buat fungsi untuk menampilkan total penjualan tiap barang, dan kemudian dapat digunakan untuk menampilkan secara spesifik total penjualan dari barang tertentu.

```

create function OrderSubTotalPerProduct()
Returns Table
as
Return
  select productname,
    sum(quantity*[order details].unitprice) as Total
  from orders,[order details],products
   where
    orders.orderid=[order details].orderid and

```

```
[order details].productid = products.productid
group by productname
```

```
select * from OrderSubTotalPerProduct()
where productname='Chai'
```

3. Buat fungsi untuk menampilkan omzet tahunan dari tiap jenis barang, sehingga nantinya dapat terbentuk sebuah tabel yang dapat menampilkan data dari sebuah tabel temporer dengan parameter jenis barang.

```
create function AnnualCategory
(@CategoryName as nvarchar(15))
Returns
@AnnualCategory Table
(
[Year] nvarchar(15),
[1996] float,
[1997] float,
[1998] float)
as
Begin
insert into @AnnualCategory ([Year],[1996],[1997],[1998])
select @CategoryName as 'Omzet Annually',[1996],[1997],[1998]
from
(
select year(orderdate) as tahun,Quantity*[order
details].UnitPrice as Qty from
orders,[order details],customers,products,categories
where orders.orderid=[order details].orderid and
orders.customerid=customers.customerid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
categoryname=@CategoryName
)
as DataAwal
pivot
(
sum(DataAwal.Qty) for DataAwal.tahun in
([1996],[1997],[1998])) as temp
return
end

select * from AnnualCategory('Beverages')
select * from AnnualCategory('Seafood')
```

Quiz Lab – 1 – Database Northwind

1. Tampilkan data penjualan barang yang pernah dibeli customer beserta jumlah pembeliannya denganurut berdasar nama customer.

	CompanyName	ProductName	Quantity
1	Alfreds Futterkiste	Rössle Sauerkraut	15
2	Alfreds Futterkiste	Chartreuse verte	21
3	Alfreds Futterkiste	Spegesild	2
4	Alfreds Futterkiste	Vegie-spread	20
5	Alfreds Futterkiste	Aniseed Syrup	6
6	Alfreds Futterkiste	Lakkalikööri	15
7	Alfreds Futterkiste	Raclette Courdavault	15
8	Alfreds Futterkiste	Original Frankfurter grüne Soße	2
9	Alfreds Futterkiste	Grandma's Boysenberry Spread	16
10	Alfreds Futterkiste	Rössle Sauerkraut	2
11	Alfreds Futterkiste	Escargots de Bourgogne	40
12	Alfreds Futterkiste	Flotemysost	20
13	Ana Trujillo Emp...	Queso Cabrales	2
14	Ana Trujillo Emp...	Konbu	10
15	Ana Trujillo Emp...	Teatime Chocolate Biscuits	7

```

select CompanyName,ProductName,Quantity from
customers,orders,[order details],products
where
customers.customerid=orders.customerid and
orders.orderid=[order details].orderid and
[order details].productid=products.productid
order by companyname

```

2. Tampilkan data customer dari Prancis yang membeli barang jenis *Beverages* beserta jumlah yang dibeli.

	CompanyName	Country	CategoryName	ProductName	Quantity
1	Blondesddsl père et fils	France	Beverages	Outback Lager	20
2	Blondesddsl père et fils	France	Beverages	Chartreuse verte	60
3	Blondesddsl père et fils	France	Beverages	Côte de Blaye	10
4	Blondesddsl père et fils	France	Beverages	Rhönbräu Klosterbier	24
5	Blondesddsl père et fils	France	Beverages	Lakkalikööri	10
6	Blondesddsl père et fils	France	Beverages	Chai	25
7	Bon app'	France	Beverages	Ipoh Coffee	40
8	Bon app'	France	Beverages	Lakkalikööri	20
9	Bon app'	France	Beverages	Chartreuse verte	21
10	Bon app'	France	Beverages	Rhönbräu Klosterbier	20
11	Du monde entier	France	Beverages	Chai	3
12	Du monde entier	France	Beverages	Sasquatch Ale	10
13	Folies ourmandes	France	Beverages	Rhönbräu Klosterbier	2

```

select CompanyName, customers.Country,
CategoryName, ProductName, Quantity
from
customers, orders, [order details], products, categories
where
customers.customerid=orders.customerid and
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
customers.country= 'France' and
categoryname= 'Beverages'

```

3. Tampilkan barang jenis *Seafood* yang telah terjual dengan urutan dari penjualan yang terbesar jumlahnya serta berdasarkan urutan alfabet nama barang.

	ProductName	CategoryName	CompanyName	Quantity
1	Jack's New England Clam Chowder	Seafood	Save-a-lot Markets	120
2	Rogede sild	Seafood	Save-a-lot Markets	110
3	Ikura	Seafood	Ernst Handel	100
4	Rogede sild	Seafood	QUICK-Stop	100
5	Boston Crab Meat	Seafood	Ernst Handel	91
6	Konbu	Seafood	Save-a-lot Markets	84
7	Escargots de Bourgogne	Seafood	Hungry Owl All-Night Grocers	80
8	Jack's New England Clam Chowder	Seafood	Hungry Owl All-Night Grocers	80
9	Konbu	Seafood	Save-a-lot Markets	80
10	Konbu	Seafood	QUICK-Stop	77
11	Boston Crab Meat	Seafood	QUICK-Stop	70
12	Ikura	Seafood	Save-a-lot Markets	70
13	Ikura	Seafood	Hanari Carnes	70
14	Konbu	Seafood	Ernst Handel	65

```

select ProductName, CategoryName, CompanyName, Quantity from
orders, [order details], customers, products, categories
where

```

```
orders.customerid=customers.customerid and
orders.orderid=[order details].orderid and
products.categoryid=categories.categoryid and
[order details].productid=products.productid and
categoryname='seafood'
order by quantity desc,productname asc
```

4. Tampilkan data penjualan barang dari supplier yang berdomisili di USA dan memasok barang kategori *Beverages*

	ProductName	CategoryName	CompanyName	Country	Quantity
1	Steeleye Stout	Beverages	Bigfoot Breweries	USA	4
2	Laughing Lumberjack Lager	Beverages	Bigfoot Breweries	USA	5
3	Steeleye Stout	Beverages	Bigfoot Breweries	USA	70
4	Sasquatch Ale	Beverages	Bigfoot Breweries	USA	10
5	Steeleye Stout	Beverages	Bigfoot Breweries	USA	40
6	Laughing Lumberjack Lager	Beverages	Bigfoot Breweries	USA	30
7	Laughing Lumberjack Lager	Beverages	Bigfoot Breweries	USA	7
8	Steeleye Stout	Beverages	Bigfoot Breweries	USA	20
9	Steeleye Stout	Beverages	Bigfoot Breweries	USA	30
10	Laughing Lumberjack Lager	Beverages	Bigfoot Breweries	USA	25
11	Steeleye Stout	Beverages	Bigfoot Breweries	USA	9
12	Sasquatch Ale	Beverages	Bigfoot Breweries	USA	12
13	Sasquatch Ale	Beverages	Bigfoot Breweries	USA	30

```
select ProductName, CategoryName, CompanyName, Country, Quantity from
orders, [order details], suppliers, products, categories
where
orders.orderid=[order details].orderid and
products.categoryid=categories.categoryid and
[order details].productid=products.productid and
products.supplierid=suppliers.supplierid and
categoryname='beverages' and
country='USA'
```


Quiz Lab – 1 – Database Northwind

1. Tampilkan data penjualan barang yang pernah dibeli customer denganurut berdasar nama customer khusus untuk pembelian dengan kuantitas 100 ke atas.

	CompanyName	ProductName	Quantity
1	Ernst Handel	Chartreuse verte	130
2	Ernst Handel	Wimmers gute Semmelknödel	130
3	Ernst Handel	Manjimup Dried Apples	120
4	Save-a-lot Markets	Rhönbräu Klosterbier	120
5	Save-a-lot Markets	Pâté chinois	120
6	QUICK-Stop	Pâté chinois	120
7	QUICK-Stop	Schoggi Schokolade	120
8	Ernst Handel	Sirop d'érable	120
9	Save-a-lot Markets	Jack's New England Clam ...	120
10	Save-a-lot Markets	Perth Pasties	120
11	Save-a-lot Markets	Rogede sild	110
12	Ernst Handel	Guaraná Fantástica	110
13	Ernst Handel	Raclette Courdavault	110
14	Save-a-lot Markets	Chang	100
15	Save-a-lot Markets	Raclette Courdavault	100
16	QUICK-Stop	Steele Stout	100

```
select CompanyName, ProductName, Quantity from
customers, orders, [order details], products
where
customers.customerid=orders.customerid and
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
quantity>=100
order by quantity desc
```

2. Tampilkan data customer dari Jerman yang membeli barang jenis *Seafood* dengan jumlah pembelian di atas 50.

	CompanyName	Country	CategoryName	ProductName	Quantity
1	Frankenversand	Germany	Seafood	Spegesild	60
2	Königlich Essen	Germany	Seafood	Boston Crab Meat	60
3	QUICK-Stop	Germany	Seafood	Boston Crab Meat	60
4	QUICK-Stop	Germany	Seafood	Rogede sild	100
5	QUICK-Stop	Germany	Seafood	Boston Crab Meat	70
6	QUICK-Stop	Germany	Seafood	Escargots de Bourgogne	60
7	QUICK-Stop	Germany	Seafood	Konbu	77

```
select CompanyName, customers.Country,
CategoryName, ProductName, Quantity
from
```

customers,orders,[order details],products,categories
where

```
customers.customerid=orders.customerid and
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
customers.country='Germany' and
categoryname='Seafood' and quantity>50
```

3. Tampilkan barang jenis *Seafood* yang telah terjual dengan urutan dari penjualan yang terbesar jumlahnya serta berdasarkan urutan alfabet nama barang.

	ProductName	CategoryName	CompanyName	Quantity
1	Jack's New England Clam Chowder	Seafood	Save-a-lot Markets	120
2	Rogede sild	Seafood	Save-a-lot Markets	110
3	Ikura	Seafood	Ernst Handel	100
4	Rogede sild	Seafood	QUICK-Stop	100
5	Boston Crab Meat	Seafood	Ernst Handel	91
6	Konbu	Seafood	Save-a-lot Markets	84
7	Escargots de Bourgogne	Seafood	Hungry Owl All-Night Grocers	80
8	Jack's New England Clam Chowder	Seafood	Hungry Owl All-Night Grocers	80
9	Konbu	Seafood	Save-a-lot Markets	80
10	Konbu	Seafood	QUICK-Stop	77
11	Boston Crab Meat	Seafood	QUICK-Stop	70
12	Ikura	Seafood	Save-a-lot Markets	70
13	Ikura	Seafood	Hanari Carnes	70
14	Konbu	Seafood	Ernst Handel	65

```
select ProductName,CategoryName,CompanyName,Quantity from
orders,[order details],customers,products,categories
where
orders.customerid=customers.customerid and
orders.orderid=[order details].orderid and
products.categoryid=categories.categoryid and
[order details].productid=products.productid and
categoryname='seafood'
order by quantity desc,productname asc
```

4. Tampilkan data penjualan barang dari supplier yang berdomisili di Inggris serta memasok barang kategori *Beverages* dan barang tersebut berhasil terjual lebih dari 50 buah

	CompanyName	Country	ProductName	CategoryName	Quantity
1	Exotic Liquids	UK	Chai	Beverages	80
2	Exotic Liquids	UK	Chai	Beverages	60
3	Exotic Liquids	UK	Chang	Beverages	60
4	Exotic Liquids	UK	Chang	Beverages	100
5	Exotic Liquids	UK	Aniseed Syrup	Condiments	60
6	Specialty Biscuits, Ltd.	UK	Teatime Chocolate Biscuits	Confections	80
7	Specialty Biscuits, Ltd.	UK	Sir Rodney's Scones	Confections	60
8	Specialty Biscuits, Ltd.	UK	Sir Rodney's Scones	Confections	60
9	Specialty Biscuits, Ltd.	UK	Sir Rodney's Scones	Confections	65
10	Specialty Biscuits, Ltd.	UK	Scottish Longbreads	Confections	60
11	Specialty Biscuits, Ltd.	UK	Scottish Longbreads	Confections	80
12	Specialty Biscuits, Ltd.	UK	Scottish Longbreads	Confections	55

```
select CompanyName, Country, ProductName, CategoryName, Quantity from
orders, [order details], suppliers, products, categories
where
orders.orderid=[order details].orderid and
products.categoryid=categories.categoryid and
[order details].productid=products.productid and
products.supplierid=suppliers.supplierid and country='UK'
and quantity>50
```

Quiz Lab – 2 – Database Northwind

1. Tampilkan jumlah penjualan barang per kategori di tahun 1997.

	CategoryName	Total
1	Beverages	110424.00
2	Condiments	59679.00
3	Confections	87227.77
4	Dairy Products	123910.80
5	Grains/Cereals	60486.95
6	Meat/Poultry	87621.03
7	Produce	57718.55
8	Seafood	71320.65

```
select CategoryName, sum(quantity*[order details].unitprice) as Total from
orders, [order details], products, categories
where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
year(orderdate)=1997
group by categoryname
```

2. Tampilkan total pembelian customer dari USA yang membeli barang jenis *Beverages*

	CompanyName	Country	Total
1	Great Lakes Food Market	USA	12298.50
2	Let's Stop N Shop	USA	162.75
3	Lonesome Pine Restaurant	USA	602.00
4	Old World Delicatessen	USA	2436.00
5	Rattlesnake Canyon Grocery	USA	19334.90
6	Save-a-lot Markets	USA	11469.00
7	Split Rail Beer & Ale	USA	4576.00
8	The Big Cheese	USA	2775.00
9	The Cracker Box	USA	114.00
10	Trail's Head Gourmet Provi...	USA	425.00
11	White Clover Markets	USA	9168.00

```
select CompanyName, Country, sum(quantity*[order details].unitprice) as Total
from
orders, [order details], customers, products, categories
where
orders.orderid=[order details].orderid and
orders.customerid=customers.customerid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
country='USA' and categoryname='Beverages'
group by companyname, country
```

3. Tampilkan omzet barang jenis *Seafood* di tahun 1998 dengan urutan dari omzet terbesar.

	CategoryName	ProductName	Total
1	Seafood	Ikura	9641.00
2	Seafood	Carnarvon Tigers	9437.50
3	Seafood	Boston Crab Meat	5575.20
4	Seafood	Nord-Ost Matjeshering	5074.44
5	Seafood	Inlagd Sill	4446.00
6	Seafood	Konbu	3954.00
7	Seafood	Jack's New England Clam Chowder	3068.70
8	Seafood	Escargots de Bourgogne	2676.50
9	Seafood	Spegesild	1932.00
10	Seafood	Gravad lax	1768.00
11	Seafood	Rogede sild	959.50
12	Seafood	Röd Kaviar	180.00

```
select CategoryName, ProductName, sum(quantity*[order details].unitprice) as
Total from
orders, [order details], customers, products, categories
where
orders.orderid=[order details].orderid and
orders.customerid=customers.customerid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
categoryname='Seafood' and year(orderdate)=1998
group by categoryname, productname
order by total desc
```

4. Tampilkan omzet penjualan dari tiap customer untuk barang yang jenisnya bukan *Seafood*

	CompanyName	Total
1	Alfreds Futterkiste	4042.20
2	Ana Trujillo Emparedados y helados	1342.95
3	Antonio Moreno Taquería	7331.35
4	Around the Horn	12890.40
5	Berglunds snabbköp	22948.15
6	Blauer See Delikatessen	2614.80
7	Blondesddsl père et fils	17452.00
8	Bólido Comidas preparadas	5297.80
9	Bon app'	18372.55
10	Bottom-Dollar Markets	20353.40
11	B's Beverages	5624.90
12	Cactus Comidas para llevar	1568.30
13	Centro comercial Moctezuma	80.00

```
select distinct CompanyName,
sum(quantity*[order details].unitprice) as Total from
orders, [order details], customers , products, categories
where
```

```
orders.orderid=[order details].orderid and  
orders.customerid=customers.customerid and  
[order details].productid=products.productid and  
products.categoryid=categories.categoryid and  
categoryname<>'Seafood'  
group by companyname
```

Quiz Lab – 2 – Database Northwind

1. Tampilkan jumlah penjualan barang per kategori yang dijual ke customer dari USA.

	CategoryName	Total
1	Beverages	63361.15
2	Condiments	18555.85
3	Confections	38804.05
4	Dairy Products	41549.30
5	Grains/Cereals	20411.30
6	Meat/Poultry	45394.06
7	Produce	10465.90
8	Seafood	25025.37

```
select CategoryName, sum(quantity*[order details].unitprice) as Total from
orders, [order details], customers, products, categories
where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
orders.customerid=customers.customerid and
country='USA'
group by categoryname
```

2. Tampilkan total pembelian customer dari USA yang membeli barang jenis *Beverages*

	CompanyName	ProductName	Total
1	Great Lakes Food Market	Chai	144.00
2	Lonesome Pine Restaurant	Chai	288.00
3	Rattlesnake Canyon Grocery	Chai	259.20
4	Save-a-lot Markets	Chai	2340.00
5	The Cracker Box	Chai	72.00
6	Rattlesnake Canyon Grocery	Chang	741.00
7	Save-a-lot Markets	Chang	3591.00
8	White Clover Markets	Chang	836.00
9	Old World Delicatessen	Chartreuse ...	432.00
10	Rattlesnake Canyon Grocery	Chartreuse ...	36.00
11	Trail's Head Gourmet Provi...	Chartreuse ...	180.00
12	Great Lakes Food Market	Côte de Blé	11857

```
select CompanyName, ProductName, sum(quantity*[order details].unitprice) as
Total from
orders, [order details], customers, products, categories
where
orders.orderid=[order details].orderid and
orders.customerid=customers.customerid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
country='USA' and categoryname='Beverages'
```

`group by` companyname, ProductName

3. Tampilkan omzet barang yang bukan dari jenis *Seafood* dengan urutan dari omzet terbesar.

	CategoryName	ProductName	Total
1	Beverages	Côte de Blaye	149984.20
2	Beverages	Ipoh Coffee	25079.20
3	Beverages	Chang	18559.20
4	Beverages	Lakkalikööri	16794.00
5	Beverages	Steeleye Stout	14536.80
6	Beverages	Chai	14277.60
7	Beverages	Chartreuse verte	13150.80
8	Beverages	Outback Lager	11472.00
9	Beverages	Rhönbräu Klos...	8650.55
10	Beverages	Sasquatch Ale	6678.00
11	Beverages	Guaraná Fant...	4782.60
12	Beverages	Laughing Lum...	2562.00
13	Condiments	Vegie-spread	17696.30
14	Condiments	Sirop d'érable	16438.80
15	Condiments	Hot Mustard	14887.00

```
select CategoryName, ProductName, sum(quantity*[order details].unitprice) as
Total from
orders, [order details], customers, products, categories
where
orders.orderid=[order details].orderid and
orders.customerid=customers.customerid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
categoryname<>'Seafood'
group by categoryname, productname
order by categoryname, total desc
```

4. Tampilkan omzet penjualan dari tiap customer untuk barang jenis *Seafood* di tahun 1996

	CompanyName	Total
1	Around the Horn	96.00
2	Berglunds snabbköp	300.00
3	Bon app'	1092.40
4	Bottom-Dollar Markets	396.80
5	Centro comercial Moctezuma	20.80
6	Die Wandernde Kuh	147.00
7	Drachenblut Delikatessen	86.40
8	Ernst Handel	2224.10
9	Familia Arquibaldo	58.80
10	Folk och fä HB	1235.00
11	Frankenversand	2229.40
12	Godos Cocina Típica	588.00
13	Hanari Carnes	77.00


```
select distinct CompanyName,  
sum(quantity*[order details].unitprice) as Total from  
orders,[order details],customers ,products,categories  
where  
orders.orderid=[order details].orderid and  
orders.customerid=customers.customerid and  
[order details].productid=products.productid and  
products.categoryid=categories.categoryid and  
categoryname='Seafood' and year(orderdate)=1996  
group by companyname
```

Quiz Lab – 3 – Database Northwind

1. Tampilkan omzet penjualan dari customer yang berdomisili di USA, Spanyol dan Inggris pada tahun 1998.

	Omzet 1998	USA	Spain	UK
1	Total	100621.48	8278.44	23129.91

```

select 'Total' as 'Omzet 1998', [USA], [Spain], [UK]
from
(
  select Country, Quantity*UnitPrice as Omzet from
  orders, [order details], customers
  where orders.orderid=[order details].orderid and
         orders.customerid=customers.customerid and
         year(orderdate)=1998
)
as DataAwal
pivot
(
  sum(DataAwal.Omzet) for DataAwal.Country in
  ([USA],[Spain],[UK])) as temp

```

2. Tampilkan omzet penjualan barang jenis *Seafood* yang terjual ke negara Argentina dan Brazil

	Omzet Seafood	Argentina	Brazil
1	Total	606.50	13338.48

```

select 'Total' as 'Omzet Seafood', [Argentina], [Brazil]
from
(
  select Country, Quantity*[order details].UnitPrice as Qty from
  orders, [order details], customers, products, categories
  where orders.orderid=[order details].orderid and
         orders.customerid=customers.customerid and
         [order details].productid=products.productid and
         products.categoryid=categories.categoryid and
         categoryname='Seafood'
)
as DataAwal
pivot
(
  sum(DataAwal.Qty) for DataAwal.Country in
  ([Argentina],[Brazil])) as temp

```

3. Tampilkan omzet penjualan tahun 1997 dan 1998 untuk jenis barang *Beverages*.

	Omzet Beverages Annually	1997	1998
1	Total	110424.00	122223.75

```

select 'Total' as 'Omzet Beverages Annually', [1997], [1998]

```

```

from
  (
    select year(orderdate) as tahun,Quantity*[order details].UnitPrice as
Qty from
  orders,[order details],customers,products,categories
  where orders.orderid=[order details].orderid and
    orders.customerid=customers.customerid and
    [order details].productid=products.productid and
    products.categoryid=categories.categoryid and
    categoryname='Beverages'
  )
  as DataAwal
pivot
  (
    sum(DataAwal.Qty) for DataAwal.tahun in
    ([1997],[1998])) as temp

```

4. Tampilkan total penjualan dari tiap transaksi yang telah dilakukan

	OrderID	OrderDate	Total Transaction
1	10248	1996-07-04 00:00:00.000	440.00
2	10249	1996-07-05 00:00:00.000	1863.40
3	10250	1996-07-08 00:00:00.000	1813.00
4	10251	1996-07-08 00:00:00.000	670.80
5	10252	1996-07-09 00:00:00.000	3730.00
6	10253	1996-07-10 00:00:00.000	1444.80
7	10254	1996-07-11 00:00:00.000	625.20
8	10255	1996-07-12 00:00:00.000	2490.50
9	10256	1996-07-15 00:00:00.000	517.80
10	10257	1996-07-16 00:00:00.000	1119.90
11	10258	1996-07-17 00:00:00.000	2018.60
12	10259	1996-07-18 00:00:00.000	100.80
13	10260	1996-07-19 00:00:00.000	1746.20

```

select Orders.OrderID,OrderDate,sum(quantity*unitprice) as 'Total
Transaction'
from orders,[order details]
where orders.orderid=[order details].orderid
group by orders.orderid, orderdate

```

Quiz Lab – 3 – Database Northwind

1. Tampilkan omzet penjualan dari barang jenis *Condiments*, *Confections* dan *Dairy Products* di tahun 1996

	Omzet 1996	Condiments	Confections	Dairy Products
1	Total	19458.30	31511.60	44615.80

```

select 'Total' as 'Omzet 1996', [Condiments], [Confections], [Dairy Products]
from
(
  select categoryname, (Quantity*[order details].UnitPrice) as Omzet from
  orders, [order details], products, categories
  where orders.orderid=[order details].orderid and
         [order details].productid=products.productid and
         products.categoryid =categories.categoryid and
         year(orderdate)=1996
)
as DataAwal
pivot
(
  sum(DataAwal.Omzet) for DataAwal.categoryname
  in ([Condiments],[Confections],[Dairy Products])) as temp

```

2. Tampilkan omzet penjualan barang jenis *Seafood* yang terjual ke negara Prancis dan Denmark di tahun 1998

	Omzet Seafood 1998	France	Denmark
1	Total	1616.00	775.00

```

select 'Total' as 'Omzet Seafood 1998', [France], [Denmark]
from
(
  select Country, Quantity*[order details].UnitPrice as Qty from
  orders, [order details], customers, products, categories
  where orders.orderid=[order details].orderid and
         orders.customerid=customers.customerid and
         [order details].productid=products.productid and
         products.categoryid=categories.categoryid and
         categoryname='Seafood' and year(orderdate)=1998
)
as DataAwal
pivot
(
  sum(DataAwal.Qty) for DataAwal.Country in
  ([France],[Denmark])) as temp

```

3. Tampilkan omzet penjualan tiap customer di tahun 1998.

	CompanyName	Total Transaction
1	Alfreds Futterkiste	2294.00
2	Ana Trujillo Emparedados y helados	799.75
3	Antonio Moreno Taquería	6452.15
4	Around the Horn	6589.00
5	Berglunds snabbköp	14533.20
6	Blauer See Delikatessen	1079.80
7	Blondesddsl père et fils	8371.80
8	Bólido Comidas preparadas	4035.80
9	Bon app'	12462.55
10	Bottom-Dollar Markets	8547.50
11	B's Beverages	3179.50
12	Cactus Comidas para llevar	238.00
13	Chan-sueu Chinese	6657.70

```

select CompanyName,
sum(quantity*unitprice) as 'Total Transaction'
from orders,[order details],customers
where orders.orderid=[order details].orderid and
orders.customerid=customers.customerid and
year(orderdate)=1997
group by companyname order by companyname

```

4. Tampilkan omzet penjualan dari negara USA pada tahun 1997 dan 1998

	Omzet Annually From USA	1997	1998
1	Total	121037.70	100621.48

```

select 'Total' as 'Omzet Annually From USA',[1997],[1998]
from
(
select year(orderdate) as tahun,Quantity*[order details].UnitPrice as
Qty from
orders,[order details],customers,products,categories
where orders.orderid=[order details].orderid and
orders.customerid=customers.customerid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
country='USA'
)
as DataAwal
pivot
(
sum(DataAwal.Qty) for DataAwal.tahun in
([1997],[1998])) as temp

```

Quiz Lab – 4 – Database Northwind

1. Tampilkan jenis barang yang tidak pernah terjual ke negara Argentina

	CategoryName
1	Meat/Poultry

```
select CategoryName from categories where
categoryid not in
(
select categories.categoryid from
orders,[order details],products,customers
where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
orders.customerid=customers.customerid and
country='Argentina'
)
```

2. Tampilkan omzet penjualan tahun 1997 dan 1998 dari customer yang bukan berasal dari USA

	Omzet Annually Non USA	1997	1998
1	Total	537351.05	369149.86

```
select 'Total' as 'Omzet Annually Non USA',[1997],[1998]
from
(
select year(orderdate) as tahun,Quantity*[order details].UnitPrice as
Qty from
orders,[order details],customers
where orders.orderid=[order details].orderid and
orders.customerid=customers.customerid and
country<>'USA'
)
as DataAwal
pivot
(
sum(DataAwal.Qty) for DataAwal.tahun in
([1997],[1998])) as temp
```

3. Tampilkan omzet penjualan tiap jenis barang di tahun 1998 yang telah terjual ke Brazil.

	CategoryName	Omzet
1	Beverages	122223.75
2	Condiments	34557.45
3	Confections	58359.73
4	Dairy Products	82803.90
5	Grains/Cereals	30422.25
6	Meat/Poultry	60275.57
7	Produce	32415.85
8	Seafood	48712.84

```

select CategoryName,
sum(quantity*[order details].unitprice) as Omzet
from orders,[order details],products,categories where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid =categories.categoryid and
year(orderdate)=1998 and
categories.categoryid in
(
select categories.categoryid from
orders,[order details],products,categories,customers
where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
orders.customerid=customers.customerid and
country='Brazil'
)
group by categoryname

```

4. Tampilkan nama pegawai yang tidak pernah menjual ke negara Portugal

	Name
1	Andrew Fuller
2	Michael Suyama

```

select firstname+ ' ' +lastname as [Name] from employees
where employeid not in
(
select distinct employeid from orders,customers where
orders.customerid=customers.customerid and
country='Portugal'
)

```

Quiz Lab – 4 – Database Northwind

1. Tampilkan jenis barang yang terjual ke negara Portugal di tahun 1997

	CategoryName
1	Beverages
2	Condiments
3	Confections
4	Dairy Products
5	Grains/Cereals
6	Seafood

```

select CategoryName from categories where
categoryid in
(
select categories.categoryid from
orders,[order details],products,customers
where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
orders.customerid=customers.customerid and
country='Portugal' and year(orderdate)=1997
)

```

2. Tampilkan omzet penjualan tahun 1997 dan 1998 dari customer berdomisili di USA

	Omzet Annually USA	1997	1998
1	Total	121037.70	100621.48

```

select 'Total' as 'Omzet Annually USA',[1997],[1998]
from
(
select year(orderdate) as tahun,Quantity*[order details].UnitPrice as
Qty from
orders,[order details],customers
where orders.orderid=[order details].orderid and
orders.customerid=customers.customerid and
country='USA'
)
as DataAwal
pivot
(
sum(DataAwal.Qty) for DataAwal.tahun in
([1997],[1998])) as temp

```

3. Tampilkan omzet penjualan tiap barang di tahun 1998.

	ProductName	Omzet
1	Alice Mutton	8463.00
2	Aniseed Syrup	1080.00
3	Boston Crab Meat	5575.20
4	Camembert Pierrot	18428.00
5	Carnarvon Tigers	9437.50
6	Chai	7182.00
7	Chang	7524.00
8	Chartreuse verte	4392.00
9	Chef Anton's Caj...	1804.00
10	Chef Anton's Gu...	3202.50
11	Chocolate	102.00
12	Côte de Blave	68510.00

```
select ProductName,
sum(quantity*[order details].unitprice) as Omzet
from orders,[order details],products where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
year(orderdate)=1998 group by productname
```

4. Tampilkan nama pegawai yang pernah melakukan penjualan ke Spanyol beserta total omzetnya masing-masing

	Name	Total
1	Nancy Davolio	202143.71
2	Andrew Fuller	177749.26
3	Janet Leverling	213051.30
4	Anne Dodsworth	82964.00
5	Margaret Peacock	250187.45
6	Laura Callahan	133301.03
7	Robert King	141295.99
8	Steven Buchanan	75567.75

```
select firstname+ ' ' +lastname as [Name],
sum(quantity*unitprice) as Total from orders,[order details],employees
where
orders.orderid=[order details].orderid and
orders.employeeid=employees.employeeid and
employees.employeeid in
(
select distinct employeeid from orders,customers where
orders.customerid=customers.customerid and
country='Spain'
)
group by firstname+ ' ' +lastname
```

Quiz Lab – 5 – Database Northwind

1. Tampilkan data penjualan barang per tahun secara tabular

```

1. Products : Alice Mutton
1998 : Omzet = 8463.00
1996 : Omzet = 7300.80
1997 : Omzet = 19718.40

2. Products : Aniseed Syrup
1998 : Omzet = 1080.00
1996 : Omzet = 240.00
1997 : Omzet = 1760.00

3. Products : Boston Crab Mea
1998 : Omzet = 5575.20
1996 : Omzet = 2998.80
1997 : Omzet = 10474.30

4. Products : Camembert Pierr
1998 : Omzet = 18428.00
1996 : Omzet = 10064.00
1997 : Omzet = 21794.00

5. Products : Carnarvon Tiger
1998 : Omzet = 9437.50

```

```

Declare @ProductName as nvarchar(15);
Declare @ProductID as int;
Declare @Year as varchar(4);
Declare @Omzet as varchar(50);
Declare @Rows as int;
Set @Rows = 1 ;
while @Rows <=(select count(*) from products)
begin
    Select top (@Rows) @ProductName=productname,
        @ProductID =productid from products;
    Print cast(@Rows as varchar(5)) + '. Products : ' + @ProductName;

    Declare @Rows2 as int;
    Set @Rows2 = 1;
    while @Rows2<=
        (select count(distinct year(orderdate)) from orders)
    begin
        Select distinct top (@Rows2) @Year=year(orderdate) from orders;
        Select @Omzet=sum(quantity*[order details].unitprice)
            from orders,[order details],products where
            orders.orderid=[order details].orderid and
            [order details].productid=products.productid and
            products.productid=@productid and
            year(orderdate)=@Year;
        Print @Year + ' : ' +
            'Omzet = ' + @Omzet;
        Set @Rows2=@Rows2 + 1;
    end;
    Set @Rows=@Rows + 1;

```

```

Print ' ';
end;
go

```

2. Tampilkan omzet penjualan di tiap jenis barang per negara secara tabular

```

1. Category : Beverages
- Finland : Omzet = 17776.00
- Brazil : Omzet = 323204.00
- USA : Omzet = 506889.20
- Italy : Omzet = 9240.00
- Germany : Omzet = 461156.80
- Mexico : Omzet = 64780.00
- Argentina : Omzet = 14384.00
- Switzerland : Omzet = 18860.00
- Sweden : Omzet = 107256.40
- Austria : Omzet = 211616.40
- UK : Omzet = 60769.60
- Poland : Omzet = 6628.00
- Canada : Omzet = 110637.60
- Ireland : Omzet = 26715.20
- France : Omzet = 109360.00
- Norway : Omzet = 22048.00
- Venezuela : Omzet = 57344.80
- Belgium : Omzet = 46915.20
- Spain : Omzet = 10905.60
- Denmark : Omzet = 96205.60
- Portugal : Omzet = 9523.20

2. Category : Condiments
- Finland : Omzet = 14984.00
- Brazil : Omzet = 97112.00
- USA : Omzet = 148446.80
- Italy : Omzet = 11586.00
- Germany : Omzet = 139160.80
- Mexico : Omzet = 9883.60
- Argentina : Omzet = 7256.00
- Switzerland : Omzet = 16434.40
- Sweden : Omzet = 39762.40

Declare @CategoryName as nvarchar(15);
Declare @CategoryID as int;
Declare @Country as nvarchar(15);
Declare @Omzet as varchar(50);
Declare @Rows as int;
Set @Rows = 1 ;
while @Rows <=(select count(*) from categories)
begin
  Select top (@Rows) @CategoryName=categoryname,
    @CategoryID =categoryid from categories;
  Print cast(@Rows as varchar(5)) + '. Category : ' + @CategoryName;
  Declare @Rows2 as int;
  Set @Rows2 = 1;
  while @Rows2<=
    (select count(distinct country) from orders,customers
     where orders.customerid=customers.customerid)
  begin
    Select distinct top (@Rows2) @Country=country from
orders,customers
  where orders.customerid=customers.customerid;
  Select @Omzet=sum(quantity*[order details].unitprice)
    from orders,[order details],products,customers,categories
  where
    orders.orderid=[order details].orderid and

```

```

        [order details].productid=products.productid and
        orders.customerid=customers.customerid and
        products.categoryid=@CategoryID and
        country=@Country;
    Print ' - ' + @Country + ' : ' +
        'Omzet = ' + @Omzet;
    Set @Rows2=@Rows2 + 1;
end;
Set @Rows=@Rows + 1;
Print ' ';
end;
go

```

3. Tampilkan omzet penjualan barang per tahun dalam bentuk persentase

```

1. Products : Alice Mutton
1998 : Omzet = 23.8514%
1996 : Omzet = 20.576%
1997 : Omzet = 55.5727%

2. Products : Aniseed Syrup
1998 : Omzet = 35.0649%
1996 : Omzet = 7.79221%
1997 : Omzet = 57.1429%

3. Products : Boston Crab Mea
1998 : Omzet = 29.2688%
1996 : Omzet = 15.7431%
1997 : Omzet = 54.9881%

4. Products : Camembert Pierr
1998 : Omzet = 36.6464%
1996 : Omzet = 20.0135%
1997 : Omzet = 43.3401%

5. Products : Carnarvon Tiger
1998 : Omzet = 29.5027%

```

```

Declare @CategoryName as nvarchar(15);
Declare @CategoryID as int;
Declare @Country as nvarchar(15);
Declare @Omzet as varchar(50);
Declare @Rows as int;
Set @Rows = 1 ;
while @Rows <=(select count(*) from categories)
begin
    Select top (@Rows) @CategoryName=categoryname,
        @CategoryID =categoryid from categories;
    Print cast(@Rows as varchar(5)) + '. Category : ' + @CategoryName;
    Declare @Rows2 as int;
    Set @Rows2 = 1;
    while @Rows2<=
        (select count(distinct country) from orders,customers
        where orders.customerid=customers.customerid)
    begin
        Select distinct top (@Rows2) @Country=country from
orders,customers

```

```
where orders.customerid=customers.customerid;
Select @Omzet=sum(quantity*[order details].unitprice)
      from orders,[order details],products,customers,categories
where
      orders.orderid=[order details].orderid and
      [order details].productid=products.productid and
      orders.customerid=customers.customerid and
      products.categoryid=@CategoryID and
      country=@Country;
Print ' - ' + @Country + ' : ' +
      'Omzet = ' + @Omzet;
Set @Rows2=@Rows2 + 1;
end;
Set @Rows=@Rows + 1;
Print ' ';
end;
go
```

Quiz Lab – 5 – Database Northwind

1. Tampilkan omzet penjualan barang per tahun dalam bentuk persentase

```

1. Products : Alice Mutton
1998 : Omzet = 23.8514%
1996 : Omzet = 20.576%
1997 : Omzet = 55.5727%

2. Products : Aniseed Syrup
1998 : Omzet = 35.0649%
1996 : Omzet = 7.79221%
1997 : Omzet = 57.1429%

3. Products : Boston Crab Mea
1998 : Omzet = 29.2688%
1996 : Omzet = 15.7431%
1997 : Omzet = 54.9881%

4. Products : Camembert Pierr
1998 : Omzet = 36.6464%
1996 : Omzet = 20.0135%
1997 : Omzet = 43.3401%

5. Products : Carnarvon Tiger
1998 : Omzet = 29.5022%

```

```

Declare @ProductName as nvarchar(15);
Declare @ProductID as int;
Declare @Year as varchar(4);
Declare @Omzet as varchar(50);
Declare @Rows as int;
Set @Rows = 1 ;
while @Rows <=(select count(*) from products)
begin
  Select top (@Rows) @ProductName=productname,
    @ProductID =productid from products;
  Print cast(@Rows as varchar(5)) + '. Products : ' + @ProductName;

  Declare @Rows2 as int;
  Set @Rows2 = 1;
  while @Rows2<=
    (select count(distinct year(orderdate)) from orders)
  begin
    Select distinct top (@Rows2) @Year=year(orderdate) from orders;
    Select @Omzet=sum(quantity*[order details].unitprice)
      from orders,[order details],products where
      orders.orderid=[order details].orderid and
      [order details].productid=products.productid and
      products.productid=@productid and
      year(orderdate)=@Year;
    Declare @Total as varchar(20);
    Declare @Persen as float;
    Select @Total=sum(quantity*[order details].unitprice)
      from orders,[order details],products where
      orders.orderid=[order details].orderid and

```

```

[order details].productid=products.productid and
products.productid=@productid ;
Print @Year + ' : ' +
      'Omzet = ' + cast(@Omzet/cast(@Total as float)*100 as
varchar(20)) + '%';
Set @Rows2=@Rows2 + 1;
end;
Set @Rows=@Rows + 1;
Print ' ';
end;
go

```

2. Tampilkan data penjualan tiap jenis barang untuk tiap customer dengan bentuk tabular

```

1. Category : Beverages
- Alfreds Futterk : Omzet = 5184.00
- Ana Trujillo Em : Omzet = 480.00
- Antonio Moreno : Omzet = 14900.00
- Around the Horn : Omzet = 11016.00
- Berglunds snabb : Omzet = 72800.40
- Blauer See Deli : Omzet = 2736.00
- Blondesddsl pèr : Omzet = 31926.40
- Bólido Comidas : Omzet = 2480.00
- Bon app' : Omzet = 18920.00
- Bottom-Dollar M : Omzet = 16532.00
- B's Beverages : Omzet = 14760.00
- Cactus Comidas : Omzet = 8728.00
- Chop-suey Chine : Omzet = 6720.00
- Consolidated Ho : Omzet = 1216.00
- Die Wandernde K : Omzet = 18241.60
- Drachenblut Del : Omzet = 1977.60
- Du monde entier : Omzet = 1552.00
- Eastern Connect : Omzet = 9840.00
- Ernst Handel : Omzet = 109636.40
- Familia Arquiba : Omzet = 10845.60
- Folies gourmand : Omzet = 3004.00
- Folk och få HB : Omzet = 34456.00
- France restaura : Omzet = 2880.00
- Frankenversand : Omzet = 17902.40
- Furia Bacalhau : Omzet = 5491.20
- Galería del gas : Omzet = 720.00
- Godos Cocina Tí : Omzet = 7072.00
- Gourmet Lanchon : Omzet = 5640.00
- Great Lakes Foo : Omzet = 98388.00
- GROSELLA-Restau : Omzet = 620.00
- Hanari Carnes : Omzet = 163850.40
- HILARION-Abasto : Omzet = 25612.80
- Hungry Owl All- : Omzet = 26715.20
- Island Trading : Omzet = 11337.60
- Königlich Essen : Omzet = 75916.80
- La corne d'abon : Omzet = 3980.00
- La maison d'Asi : Omzet = 17369.60
- Laughing Bacchu : Omzet = 780.00
- Lehmanns Markts : Omzet = 18552.00
- Let's Stop N Sh : Omzet = 1302.00
- LILA-Supermerca : Omzet = 5352.00
- LINO-Delicatese : Omzet = 25760.00
- Lonesome Pine R : Omzet = 4816.00
- Magazzini Alime : Omzet = 7440.00
- Maison Dewey : Omzet = 11904.00
- Mère Paillardde : Omzet = 93325.60
- Morgenstern Ges : Omzet = 1440.00
- North/South : Omzet = 2232.00
- Océano Atlántic : Omzet = 1440.00
- Old World Delic : Omzet = 19488.00
- Ottilies Käsela : Omzet = 9536.00
- Pericles Comida : Omzet = 5958.40

```

- Piccolo und meh : Omzet = 101980.00
- Princesa Isabel : Omzet = 4032.00
- Que Delícia : Omzet = 11088.00
- Queen Cozinha : Omzet = 103480.00
- QUICK-Stop : Omzet = 306182.40
- Rancho grande : Omzet = 4216.00
- Rattlesnake Can : Omzet = 154679.20
- Reggiani Caseif : Omzet = 1800.00
- Ricardo Adocica : Omzet = 9876.00
- Richter Superma : Omzet = 12140.00
- Romero y tomill : Omzet = 633.60
- Santé Gourmet : Omzet = 22048.00
- Save-a-lot Mark : Omzet = 91752.00
- Seven Seas Impo : Omzet = 10368.00
- Simons bistro : Omzet = 84320.00
- Spécialités du : Omzet = 11408.00
- Split Rail Beer : Omzet = 36608.00
- Suprêmes délice : Omzet = 35011.20
- The Big Cheese : Omzet = 22200.00
- The Cracker Box : Omzet = 912.00
- Toms Spezialitä : Omzet = 3488.00
- Tortuga Restaur : Omzet = 43441.60
- Tradição HiperM : Omzet = 4032.00
- Trail's Head Go : Omzet = 3400.00
- Vaffeljernet : Omzet = 11885.60
- Victuailles en : Omzet = 18320.00
- Wartian Herkku : Omzet = 13120.00
- Wellington Impo : Omzet = 14392.00
- White Clover Ma : Omzet = 73344.00
- Wilman Kala : Omzet = 4656.00
- Wolski Zajazd : Omzet = 6628.00

2. Category : Condiments

- Alfreds Futterk : Omzet = 10912.00
- Antonio Moreno : Omzet = 544.00
- Berglunds snabb : Omzet = 8742.40
- Blauer See Deli : Omzet = 912.00
- Bólido Comidas : Omzet = 3379.20
- Bon app' : Omzet = 27684.00
- Bottom-Dollar M : Omzet = 16880.80
- B's Beverages : Omzet = 1920.00
- Chop-suey Chine : Omzet = 14750.40
- Comércio Mineir : Omzet = 6798.00
- Consolidated Ho : Omzet = 5124.00
- Die Wandernde K : Omzet = 3420.00
- Eastern Connect : Omzet = 16324.40
- Ernst Handel : Omzet = 124677.60
- Folies gourmand : Omzet = 10536.00
- Folk och fä HB : Omzet = 31020.00
- France restaura : Omzet = 2020.80
- Franchi S.p.A. : Omzet = 1040.00
- Frankenversand : Omzet = 1560.00
- Furia Bacalhau : Omzet = 18821.20
- Galería del gas : Omzet = 1088.00
- Godos Cocina Tí : Omzet = 9848.40

```

Declare @CategoryName as nvarchar(15);
Declare @CategoryID as int;
Declare @CompanyName as nvarchar(15);
Declare @Omzet as varchar(50);
Declare @Rows as int;
Set @Rows = 1 ;
while @Rows <=(select count(*) from categories)
begin
    Select top (@Rows) @CategoryName=categoryname,
        @CategoryID =categoryid from categories;
    Print cast(@Rows as varchar(5)) + '. Category : ' + @CategoryName;
    Declare @Rows2 as int;

```



```

Set @Rows2 = 1;
while @Rows2<=
    (select count(*) from customers)
begin
    Declare @CustomerID as nchar(5);
    Select top (@Rows2) @CustomerID=customerid,
        @CompanyName=companyname from customers;
    Select @Omzet=sum(quantity*[order details].unitprice)
        from orders,[order details],products,customers,categories
where
    orders.orderid=[order details].orderid and
    [order details].productid=products.productid and
    orders.customerid=customers.customerid and
    products.categoryid=@CategoryID and
    orders.customerid=@CustomerID;
    if cast(@Omzet as float)>0
    Print ' - ' + @CompanyName + ' : ' +
        'Omzet = ' + cast(@Omzet as varchar(20));

    Set @Rows2=@Rows2 + 1;
end;
Set @Rows=@Rows + 1;
Print ' ';
end;
go

```

3. Tampilkan data penjualan barang per tahun secara tabular

```

1. Products : Alice Mutton
1998 : Omzet = 8463.00
1996 : Omzet = 7300.80
1997 : Omzet = 19718.40

2. Products : Aniseed Syrup
1998 : Omzet = 1080.00
1996 : Omzet = 240.00
1997 : Omzet = 1760.00

3. Products : Boston Crab Mea
1998 : Omzet = 5575.20
1996 : Omzet = 2998.80
1997 : Omzet = 10474.30

4. Products : Camembert Pierr
1998 : Omzet = 18428.00
1996 : Omzet = 10064.00
1997 : Omzet = 21794.00

5. Products : Carnarvon Tiger
1998 : Omzet = 9437.50

```

```

Declare @ProductName as nvarchar(15);
Declare @ProductID as int;
Declare @Year as varchar(4);
Declare @Omzet as varchar(50);
Declare @Rows as int;

```

```
Set @Rows = 1 ;
while @Rows <=(select count(*) from products)
begin
    Select top (@Rows) @ProductName=productname,
        @ProductID =productid from products;
    Print cast(@Rows as varchar(5)) + '. Products : ' + @ProductName;

    Declare @Rows2 as int;
    Set @Rows2 = 1;
    while @Rows2<=
        (select count(distinct year(orderdate)) from orders)
    begin
        Select distinct top (@Rows2) @Year=year(orderdate) from orders;
        Select @Omzet=sum(quantity*[order details].unitprice)
            from orders,[order details],products where
            orders.orderid=[order details].orderid and
            [order details].productid=products.productid and
            products.productid=@productid and
            year(orderdate)=@Year;
        Print @Year + ' : ' +
            'Omzet = ' + @Omzet;
        Set @Rows2=@Rows2 + 1;
    end;
    Set @Rows=@Rows + 1;
    Print ' ';
end;
go
```

Quiz Lab – 6 – Database Northwind

1. Buat sebuah prosedur untuk menampilkan omzet penjualan per tahun dari jenis barang yang bisa dipilih. Contoh output dengan parameter *Beverages*

```

Year : 1998
      Omzet for Beverages is 122223.75
Year : 1996
      Omzet for Beverages is 53879.20
Year : 1997
      Omzet for Beverages is 110424.00

```

```

create proc HighestOmzetPerCategory
    @CategoryName as nvarchar(15)
as
    Declare @Rows as int;
    set @Rows = 1;
    while @Rows<=(Select count(distinct year(orderdate)) from orders)
    begin
        Declare @Year as int;
        Declare @Omzet as varchar(20);
        Select distinct top (@Rows) @Year=year(orderdate) from orders;
        Select @Omzet=sum(quantity*[order details].unitprice)
        from orders,[order details],products,categories where
        orders.orderid=[order details].orderid and
        [order details].productid=products.productid and
        products.categoryid=categories.categoryid and
        categoryname=@CategoryName and
        year(orderdate)=@Year;
        Print 'Year : ' + cast(@Year as char(4)) ;
        Print ' Omzet for ' +
            @CategoryName + ' is ' + cast(@Omzet as varchar(20));
        set @Rows=@Rows+1;
    end;
go

```

```
exec highestomzetpercategory 'Beverages'
```

2. Buat sebuah prosedur untuk menampilkan data penjualan barang jenis *Seafood* dengan parameter tahunan. Contoh output untuk tahun 1998

	Category :	Seafood
1	1998	48712.84

```

create proc CategoryPerYear
    @Year as int
as
select cast(@Year as char(4)) as [Category : ],[Seafood]
from
(
    select CategoryName,Quantity*[order details].unitprice as Qty from
    orders,[order details],products,categories
    where orders.orderid=[order details].orderid and

```

```

        [order details].productid=products.productid and
        products.categoryid=categories.categoryid and
        year(orderdate)=cast(@Year as int)
    )
    as DataAwal
pivot
(
    sum(DataAwal.Qty) for DataAwal.CategoryName in
    ([Seafood])) as temp
go

exec categoryperyear 1998

```

3. Buat sebuah prosedur untuk menampilkan data penjualan tiap jenis barang per tahun dengan parameter jenis barang secara tabular. Contoh output untuk jenis *Dairy Products*

```

1. Products : Queso Cabrales
1998 : Omzet = 4662.00
1996 : Omzet = 1814.40
1997 : Omzet = 7425.60

2. Products : Queso Manchego
1998 : Omzet = 3648.00
1996 : Omzet = 364.80
1997 : Omzet = 8854.00

3. Products : Gorgonzola Teli
1998 : Omzet = 3712.50
1996 : Omzet = 4440.00
1997 : Omzet = 8020.00

4. Products : Mascarpone Fabi
1998 : Omzet = 4704.00
1996 : Omzet = 1331.20
1997 : Omzet = 3136.00

5. Products : Geitost
1998 : Omzet = 505.00
1996 : Omzet = 394.00
1997 : Omzet = 814.50

6. Products : Raclette Courda
1998 : Omzet = 28215.00
1996 : Omzet = 10164.00
1997 : Omzet = 37917.00

7. Products : Camembert Pierr
1998 : Omzet = 18428.00
1996 : Omzet = 10064.00
1997 : Omzet = 21794.00

8. Products : Gudbrandsdalsos
1998 : Omzet = 4860.00
1996 : Omzet = 4291.20
1997 : Omzet = 15156.00

9. Products : Flotemysost
1998 : Omzet = 7353.00
1996 : Omzet = 4489.20
1997 : Omzet = 9034.30

10. Products : Mozzarella di G
1998 : Omzet = 6716.40
1996 : Omzet = 7263.00
1997 : Omzet = 11759.40

```

```

create proc ProductPerCatPerYear
    @CategoryName as nvarchar(40)
as
Declare @ProductName as nvarchar(15);
Declare @ProductID as int;
Declare @Year as varchar(4);
Declare @Omzet as varchar(50);
Declare @Rows as int;
Set @Rows = 1 ;
while @Rows <=(select count(productid) from products, categories
    where products.categoryid=categories.categoryid and
    categoryname=@CategoryName)
begin
    Select top (@Rows) @ProductName=productname,
        @ProductID =productid from products ,categories
        where products.categoryid=categories.categoryid and
        categoryname=@CategoryName;
    Print cast(@Rows as varchar(5)) + '. Products : ' + @ProductName;
    Declare @Rows2 as int;
    Set @Rows2 = 1;
    while @Rows2<=
        (select count(distinct year(orderdate)) from orders)
    begin
        Select distinct top (@Rows2) @Year=year(orderdate) from orders;
        Select @Omzet=sum(quantity*[order details].unitprice)
            from orders, [order details], products, categories where
            orders.orderid=[order details].orderid and
            [order details].productid=products.productid and
            products.categoryid=categories.categoryid and
            categoryname=@CategoryName and
            products.productid=@productid and
            year(orderdate)=@Year;
        Print @Year + ' : ' +
            'Omzet = ' + @Omzet;
        Set @Rows2=@Rows2 + 1;
    end;
    Set @Rows=@Rows + 1;
    Print ' ';
end;
go

exec productpercatperyear 'dairy products'

```

Quiz Lab – 6 – Database Northwind

1. Buat sebuah prosedur untuk menampilkan data penjualan tiap jenis barang per tahun dengan parameter jenis barang secara tabular. Contoh output untuk jenis *Produce*

```
1. Products : Uncle Bob's Org
1998 : Omzet = 12420.00
1996 : Omzet = 600.00
1997 : Omzet = 9444.00
```

```
2. Products : Tofu
1998 : Omzet = 488.25
1996 : Omzet = 1581.00
1997 : Omzet = 6561.15
```

```
3. Products : Rössle Sauerkra
1998 : Omzet = 7341.60
1996 : Omzet = 4914.00
1997 : Omzet = 14610.00
```

```
4. Products : Manjimup Dried
1998 : Omzet = 11766.00
1996 : Omzet = 6911.20
1997 : Omzet = 26065.40
```

```
5. Products : Longlife Tofu
1998 : Omzet = 400.00
1996 : Omzet = 1128.00
1997 : Omzet = 1038.00
```

```
create proc ProductPerCatPerYear
    @CategoryName as nvarchar(40)
as
Declare @ProductName as nvarchar(15);
Declare @ProductID as int;
Declare @Year as varchar(4);
Declare @Omzet as varchar(50);
Declare @Rows as int;
Set @Rows = 1 ;
while @Rows <=(select count(productid) from products, categories
where products.categoryid=categories.categoryid and
categoryname=@CategoryName)
begin
    Select top (@Rows) @ProductName=productname,
        @ProductID =productid from products , categories
        where products.categoryid=categories.categoryid and
        categoryname=@CategoryName;
    Print cast(@Rows as varchar(5)) + '. Products : ' + @ProductName;
    Declare @Rows2 as int;
    Set @Rows2 = 1;
    while @Rows2<=
        (select count(distinct year(orderdate)) from orders)
    begin
        Select distinct top (@Rows2) @Year=year(orderdate) from orders;
        Select @Omzet=sum(quantity*[order details].unitprice)
            from orders,[order details],products, categories where
            orders.orderid=[order details].orderid and
            [order details].productid=products.productid and
            products.categoryid=categories.categoryid and
            categoryname=@CategoryName and
```

```

        products.productid=@productid and
        year(orderdate)=@Year;
Print @Year + ' : ' +
        'Omzet = ' + @Omzet;
Set @Rows2=@Rows2 + 1;
end;
Set @Rows=@Rows + 1;
Print ' ';
end;
go

exec productpercatperyear 'Produce'

```

2. Buat sebuah prosedur untuk menampilkan data omzet tahunan dari customer yang berdomisili di USA dengan parameter tahun. Contoh output untuk tahun 1997

	Omzet	USA
1	1997	121037.70

```

create proc SalesUSAPerYear
    @Year as int
as
select cast(@Year as char(4)) as 'Omzet' ,[USA]
from
(
    select Country,Quantity*UnitPrice as Omzet from
orders,[order details],customers
where orders.orderid=[order details].orderid and
        orders.customerid=customers.customerid and
        year(orderdate)=@Year
)
as DataAwal
pivot
(
    sum(DataAwal.Omzet) for DataAwal.Country in
    ([USA])) as temp
go

exec salesusaperyear 1997

```

3. Buat sebuah prosedur untuk menampilkan omzet penjualan per tahun dari jenis barang yang bisa dipilih. Contoh output dengan parameter *Beverages*

```

Year : 1998
Omzet for Beverages is 122223.75
Year : 1996
Omzet for Beverages is 53879.20
Year : 1997
Omzet for Beverages is 110424.00

```

```

create proc HighestOmzetPerCategory
    @CategoryName as nvarchar(15)
as

```

```
Declare @Rows as int;
set @Rows = 1;
while @Rows<=(Select count(distinct year(orderdate)) from orders)
begin
    Declare @Year as int;
    Declare @Omzet as varchar(20);
    Select distinct top (@Rows) @Year=year(orderdate) from orders;
    Select @Omzet=sum(quantity*[order details].unitprice)
    from orders,[order details],products,categories where
    orders.orderid=[order details].orderid and
    [order details].productid=products.productid and
    products.categoryid=categories.categoryid and
    categoryname=@CategoryName and
    year(orderdate)=@Year;
    Print 'Year : ' + cast(@Year as char(4)) ;
    Print ' Omzet for ' +
        @CategoryName + ' is ' + cast(@Omzet as varchar(20));
    set @Rows=@Rows+1;
end;
go

exec highestomzetpercategory 'Beverages'
```


Quiz Lab – 7 – Database Northwind

1. Buat fungsi yang dapat menampilkan total omzet penjualan tahunan dari tiap negara. Contoh output untuk negara USA

Year	1996	1997	1998
USA	41907.8	121037.7	100621.48

```

create function AnnualCountry
  (@Country as nvarchar(15))
Returns
  @AnnualCountry Table
  (
    [Year] nvarchar(40),
    [1996] float,
    [1997] float,
    [1998] float)
as
Begin
  insert into @AnnualCountry([Year],[1996],[1997],[1998])
  select @Country,[1996],[1997],[1998]
  from
    (
      select year(orderdate) as tahun,Quantity*[order
details].UnitPrice as Qty from
orders,[order details],customers,products,categories
where orders.orderid=[order details].orderid and
orders.customerid=customers.customerid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
country=@Country
    )
  as DataAwal
  pivot
  (
    sum(DataAwal.Qty) for DataAwal.tahun in
    ([1996],[1997],[1998])) as temp
  return
end

select * from AnnualCountry('USA')

```

2. Buat sebuah fungsi untuk menampilkan data customer yang tidak pernah melakukan transaksi tahunan. Contoh output untuk tahun 1997

	CompanyName	Country
1	Centro comercial Moctezuma	Mexico
2	FISSA Fabrica Inter. Salchichas S.A.	Spain
3	La corne d'abondance	France
4	Paris spécialités	France
5	Romero y tomillo	Spain

```

create function AnnualNonBuyer
  (@Year as varchar(20))
Returns @NonBuyer Table
(
  CompanyName nvarchar(40),
  Country nvarchar(15))
as

begin
insert into @NonBuyer(CompanyName, Country)
select CompanyName, Country from customers where
customerid not in
(
select customers.customerid from orders, customers
where
orders.customerid=customers.customerid and
year(orderdate)=@Year
)
return
end

select * from annualnonbuyer(1997)

```

3. Buat sebuah fungsi yang dapat menampilkan nama pegawai yang telah berhasil meloloskan transaksi penjualan di tiap negara. Contoh output untuk negara Mexico.

	Name	Total
1	Nancy Davolio	202143.71
2	Andrew Fuller	177749.26
3	Janet Leverling	213051.3
4	Margaret Peacock	250187.45
5	Laura Callahan	133301.03
6	Robert King	141295.99
7	Steven Buchanan	75567.75

```

create function EmployeePerCountry
  (@Country as nvarchar(15))
Returns
  @EmployeePerCountry Table
  ([Name] nvarchar(35), [Total] float)
as
begin
insert into @EmployeePerCountry([Name], [Total])
select firstname+ ' '+lastname as [Name] ,
sum(quantity*unitprice) as Total from orders, [order
details], employees
where
orders.orderid=[order details].orderid and
orders.employeeid=employees.employeeid and
employees.employeeid in
(
select distinct employeeid from orders, customers where
orders.customerid=customers.customerid and
country=@Country

```

```
)  
    group by firstname+ ' '+ lastname  
return  
end  
  
select * from employeepercountry('Mexico')
```

Quiz Lab – 7 – Database Northwind

1. Buat fungsi yang dapat menampilkan omzet penjualan per pegawai dengan parameter jenis barang. Contoh output untuk jenis barang *Seafood*

	Name	Total
1	Andrew Fuller	17561.7
2	Anne Dodsworth	8912.55
3	Janet Leverling	27491.99
4	Laura Callahan	13448.38
5	Margaret Peacock	29041.67
6	Michael Suyama	6409.95
7	Nancy Davolio	24947.05
8	Robert King	7609.2
9	Steven Buchanan	6200.6

```

create function EmployeePerCategory
  (@CategoryName as nvarchar(15))
Returns
  @EmployeePerCategory Table
  ([Name] nvarchar(35),[Total] float)
as
begin
  insert into @EmployeePerCategory([Name],[Total])
  select firstname+ ' '+lastname as [Name] ,
         sum(quantity*[order details].unitprice) as Total from
  orders,[order details],products,categories,employees
  where
  orders.orderid=[order details].orderid and
  orders.employeeid=employees.employeeid and
  [order details].productid=products.productid and
  products.categoryid=categories.categoryid and
  categoryname=@CategoryName
  group by firstname+ ' '+ lastname
  return
end

select * from employeepercategory('Seafood')

```

2. Buat sebuah fungsi untuk menampilkan data customer yang tidak pernah melakukan transaksi tahunan. Contoh output untuk tahun 1998

	CompanyName	Country
1	Centro comercial Moctezuma	Mexico
2	Familia Arquibaldo	Brazil
3	FISSA Fabrica Inter. Salchichas S.A.	Spain
4	Folies gourmandes	France
5	GROSELLA-Restaurante	Venezuela
6	Hungry Coyote Import Store	USA
7	Lazy K Kountry Store	USA
8	Mère Paillarde	Canada
9	Paris spécialités	France
10	Vins et alcools Chevalier	France

```

create function AnnualNonBuyer
  (@Year as varchar(20))
Returns @NonBuyer Table
(
  CompanyName nvarchar(40),
  Country nvarchar(15))
as

begin
insert into @NonBuyer(CompanyName, Country)
select CompanyName, Country from customers where
customerid not in
(
select customers.customerid from orders, customers
where
orders.customerid=customers.customerid and
year(orderdate)=@Year
)
return
end

select * from annualnonbuyer(1998)

```

3. Buat sebuah fungsi yang dapat menampilkan jumlah penjualan tiap jenis barang secara tahunan.
Contoh output untuk jenis barang *Condiments*

	Year	1996	1997	1998
1	Condiments	19458.3	59679	34557.45

```

create function AnnualCategories
  (@CategoryName as nvarchar(15))
Returns
  @AnnualCategory Table
(
  [Year] nvarchar(40),
  [1996] float,
  [1997] float,
  [1998] float)
as

```

Begin

```
insert into @AnnualCategory([Year],[1996],[1997],[1998])
select @CategoryName,[1996],[1997],[1998]
from
(
select year(orderdate) as tahun,Quantity*[order
details].UnitPrice as Qty from
orders,[order details],products,categories
where orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
categoryname=@CategoryName
)
as DataAwal
pivot
(
sum(DataAwal.Qty) for DataAwal.tahun in
([1996],[1997],[1998])) as temp
return
end

select * from annualcategories('Condiments')
```

Quiz Lab – 8 – Database Northwind

Score : 40

1. Create stored procedures for :
 - a. Display total sales of a country every twelve months. Output sample for Spain's sales in 1997

	CategoryName	Total
1	Condiments	285.00
2	Confections	152.00
3	Grains/Cereals	637.45
4	Meat/Poultry	6823.60
5	Seafood	155.00

```

create proc CategoryPerCountryPerYear
    @Country as nvarchar(15),@Year varchar(20)
as
select CategoryName,sum(quantity*[order details].unitprice) as Total from
orders,[order details],customers,products,categories
where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
orders.customerid=customers.customerid and
country=@Country and year(orderdate)=@Year
group by categoryname
go

```

```
exec CategoryPerCountryPerYear 'Spain',1997
```

- b. Display total sales for each customer in certain category. Output sample for customer from USA in product that being categorized as Beverages.

	CompanyName	Total
1	Great Lakes Food Market	12298.50
2	Let's Stop N Shop	162.75
3	Lonesome Pine Restaurant	602.00
4	Old World Delicatessen	2436.00
5	Rattlesnake Canyon Grocery	19334.90
6	Save-a-lot Markets	11469.00
7	Split Rail Beer & Ale	4576.00
8	The Big Cheese	2775.00
9	The Cracker Box	114.00
10	Trail's Head Gourmet Provi...	425.00
11	White Clover Markets	9168.00

```
create proc CompanyPerCountry
```

```

@Country as nvarchar(15),@CategoryName as nvarchar(15)
as
select CompanyName,sum(quantity*[order details].unitprice) as Total from
orders,[order details],customers,products,categories
where
orders.orderid=[order details].orderid and
orders.customerid=customers.customerid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
country=@Country and categoryname=@CategoryName
group by companyname,country
go

```

```
exec companypercountry 'USA','Beverages'
```

Score : 30

2. Create batch query that can exhibit :

a. Annual omzet and total sales for each product.

```

1. Products : Alice Mutton
1996 : Omzet = 7300.80
1997 : Omzet = 19718.40
1998 : Omzet = 8463.00
Total : 35482.2

2. Products : Aniseed Syrup
1996 : Omzet = 240.00
1997 : Omzet = 1760.00
1998 : Omzet = 1080.00
Total : 3080

3. Products : Boston Crab Mea
1996 : Omzet = 2998.80
1997 : Omzet = 10474.30
1998 : Omzet = 5575.20
Total : 19048.3

4. Products : Camembert Pierr
1996 : Omzet = 10064.00
1997 : Omzet = 21794.00
1998 : Omzet = 18478.00

```

```

Declare @ProductName as nvarchar(15);
Declare @ProductID as int;
Declare @Year as varchar(4);
Declare @Omzet as varchar(50);
Declare @Rows as int;
Declare @SubTotal as float;
Set @Rows = 1 ;
while @Rows <=(select count(*) from products)
begin
    Select top (@Rows) @ProductName=productname,
        @ProductID =productid from products;
    Print cast(@Rows as varchar(5)) + '. Products : ' + @ProductName;
    Declare @Rows2 as int;

```



```

Set @Rows2 = 1;
Set @Subtotal=0;
while @Rows2<=
    (select count(distinct year(orderdate)) from orders)
begin
    Select distinct top (@Rows2) @Year=year(orderdate) from orders
order by year(orderdate);
    Select @Omzet=sum(quantity*[order details].unitprice)
    from orders,[order details],products where
    orders.orderid=[order details].orderid and
    [order details].productid=products.productid and
    products.productid=@productid and
    year(orderdate)=@Year;
    Print @Year + ' : ' +
        'Omzet = ' + @Omzet;
    Set @Rows2=@Rows2 + 1;
    Set @SubTotal=@SubTotal+@Omzet;
end;
Print 'Total : ' + cast(@SubTotal as varchar(30));
Set @Rows=@Rows + 1;
Print ' ';
end;
go

```

b. Total sales for each country in each category.

```

1. Category : Beverages
- Argentina : Omzet = 14384.00
- Austria : Omzet = 211616.40
- Belgium : Omzet = 46915.20
- Brazil : Omzet = 323204.00
- Canada : Omzet = 110637.60
- Denmark : Omzet = 96205.60
- Finland : Omzet = 17776.00
- France : Omzet = 109360.00
- Germany : Omzet = 461156.80
- Ireland : Omzet = 26715.20
- Italy : Omzet = 9240.00
- Mexico : Omzet = 64780.00
- Norway : Omzet = 22048.00
- Poland : Omzet = 6628.00
- Portugal : Omzet = 9523.20
- Spain : Omzet = 10905.60
- Sweden : Omzet = 107256.40
- Switzerland : Omzet = 18860.00
- UK : Omzet = 60769.60
- USA : Omzet = 506889.20
- Venezuela : Omzet = 57344.80

2. Category : Condiments
- Argentina : Omzet = 7256.00
- Austria : Omzet = 134419.20
- Belgium : Omzet = 21717.60
- Brazil : Omzet = 97112.00
- Canada : Omzet = 40084.80
- Denmark : Omzet = 35643.20
- Finland : Omzet = 14984.00
- France : Omzet = 57187.20
- Germany : Omzet = 139160.80
- Ireland : Omzet = 31188.00
- Italy : Omzet = 11586.00
- Mexico : Omzet = 9883.60
- Norway : Omzet = 1872.00
- Poland : Omzet = 5016.00

```

```

- Portugal : Omzet = 30955.60
- Spain : Omzet = 14315.60
- Sweden : Omzet = 39762.40
- Switzerland : Omzet = 16434.40
- UK : Omzet = 36608.40
- USA : Omzet = 148446.80
- Venezuela : Omzet = 15924.40

```

```

Declare @CategoryName as nvarchar(15);
Declare @CategoryID as int;
Declare @Country as nvarchar(15);
Declare @Omzet as varchar(50);
Declare @Rows as int;
Set @Rows = 1 ;
while @Rows <=(select count(*) from categories)
begin
    Select top (@Rows) @CategoryName=categoryname,
        @CategoryID =categoryid from categories;
    Print cast(@Rows as varchar(5)) + '. Category : ' + @CategoryName;
    Declare @Rows2 as int;
    Set @Rows2 = 1;
    while @Rows2<=
        (select count(distinct country) from customers )
    begin
        Declare @CustomerID as nchar(5);
        Select distinct top (@Rows2) @Country=country
            from customers order by country;
        Select @Omzet=sum(quantity*[order details].unitprice)
            from orders,[order details],products,customers,categories
    where
        orders.orderid=[order details].orderid and
        [order details].productid=products.productid and
        orders.customerid=customers.customerid and
        products.categoryid=@CategoryID and
        country=@Country;
        if cast(@Omzet as float)>0
        Print ' - ' + @Country + ' : ' +
            'Omzet = ' + cast(@Omzet as varchar(20));
        Set @Rows2=@Rows2 + 1;
    end;
    Set @Rows=@Rows + 1;
    Print ' ';
end;
go

```

Score : 15

3. Write down SQL statement to display data in following output samples :

a.

Dairy Products	Venezuela	France
Total	18683.70	9318.90

```

select 'Total' as 'Dairy Products',[Venezuela],[France]
from
(
    select Country,Quantity*[order details].UnitPrice as Qty from

```

```

orders,[order details],customers,products,categories
where orders.orderid=[order details].orderid and
orders.customerid=customers.customerid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
categoryname='Dairy Products'
)
as DataAwal
pivot
(
sum(DataAwal.Qty) for DataAwal.Country in
([Venezuela],[France])) as temp

```

b.

	Country	CategoryName	Omzet	Percentage
1	Mexico	Beverages	8097.50	33.63
2	Mexico	Condiments	1235.45	5.13
3	Mexico	Confections	2066.95	8.58
4	Mexico	Dairy Products	4912.40	20.40
5	Mexico	Grains/Cereals	559.50	2.32
6	Mexico	Meat/Poultry	2828.90	11.75
7	Mexico	Produce	2517.75	10.45
8	Mexico	Seafood	1855.00	7.70

```

select Country,CategoryName,
sum(quantity*[order details].unitprice) as Omzet,
(
sum(quantity*[order details].unitprice)/
(select sum(quantity*[order details].unitprice) from
orders,[order details],products,categories,customers where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid =categories.categoryid and
orders.customerid=customers.customerid and
country ='Mexico' )*100
) as Percentage
from orders,[order details],products,categories,customers where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid =categories.categoryid and
orders.customerid=customers.customerid and
country ='Mexico'
group by country,categoryname

```

c.

	Category	Omzet	Percentage
1	Meat/Poultry	178188.80	13.15
2	Seafood	141623.09	10.45
3	Confections	177099.10	13.07
4	Condiments	113694.75	8.39
5	Produce	105268.60	7.77
6	Beverages	286526.95	21.15
7	Grains/Cereals	100726.80	7.43
8	Dairy Products	251330.50	18.55

```

select distinct CategoryName as Category,
sum(quantity*[order details].unitprice) as Omzet,
(
sum(quantity*[order details].unitprice)/
(select sum(quantity*[order details].unitprice) from
orders,[order details],products,categories,customers where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid =categories.categoryid and
orders.customerid=customers.customerid )*100
) as Percentage
from orders,[order details],products,categories,customers where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid =categories.categoryid and
orders.customerid=customers.customerid
group by categoryname

```

Score : 15

4. Create function to present total sales for each country in certain year. Output sample for country Mexico in year 1997.

	CompanyName	Total Sales
1	Ana Trujillo Emparedados y helados	799.75
2	Antonio Moreno Taquería	6452.15
3	Pericles Comidas clásicas	2065.4
4	Tortuga Restaurante	5523.35

```

create function AnnualBuyer
(@Year as varchar(20),@Country as nvarchar(15))
Returns @Buyer Table
(
    CompanyName nvarchar(40),
    [Total Sales] float)
as
begin
insert into @Buyer(CompanyName,[Total Sales])
select CompanyName,sum(quantity*unitprice) as [Total Sales] from
orders,[order details],customers where

```

```
orders.orderid=[order details].orderid and  
orders.customerid=customers.customerid and  
year(orderdate)=@Year and country=@Country  
group by companyname, country  
return  
end  
  
select * from annualbuyer(1997, 'Mexico')
```

Quiz Lab – 8 – Database Northwind

Score : 40

1. Create stored procedures for :
 - a. Display total sales for each country in certain category every twelve months. Output sample for Seafood's sales in 1997

Country	Total
Argentina	216.00
Austria	7737.90
Belgium	1312.00
Brazil	6558.15
Canada	972.00
Denmark	775.00
Finland	340.80
France	1616.00
Germany	6496.35
Ireland	2457.54
Italy	693.00
Mexico	60.00
Norway	436.60
Spain	867.89
Sweden	2905.15
Switzerland	877.90
UK	634.00
USA	7908.50
Venezuela	5848.06

```

create proc CountryPerCategoryPerYear
    @CategoryName as nvarchar(15),@Year varchar(20)
as
select Country,sum(quantity*[order details].unitprice) as Total from
orders,[order details],customers,products,categories
where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
orders.customerid=customers.customerid and
categoryname=@CategoryName and year(orderdate)=@Year
group by country
go

exec countrypercategoryperyear 'Seafood',1997
  
```

- b. Display total sales for each customer in certain category. Output sample for customer from USA in product that being categorized as Beverages.

	CompanyName	Total
1	Great Lakes Food Market	12298.50
2	Let's Stop N Shop	162.75
3	Lonesome Pine Restaurant	602.00
4	Old World Delicatessen	2436.00
5	Rattlesnake Canyon Grocery	19334.90
6	Save-a-lot Markets	11469.00
7	Split Rail Beer & Ale	4576.00
8	The Big Cheese	2775.00
9	The Cracker Box	114.00
10	Trail's Head Gourmet Provi...	425.00
11	White Clover Markets	9168.00

```

create proc CompanyPerCountry
    @Country as nvarchar(15),@CategoryName as nvarchar(15)
as
select CompanyName,sum(quantity*[order details].unitprice) as Total from
orders,[order details],customers,products,categories
where
orders.orderid=[order details].orderid and
orders.customerid=customers.customerid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
country=@Country and categoryname=@CategoryName
group by companyname,country
go

exec companypercountry 'USA','Beverages'

```

Score : 30

2. Create batch query that can exhibit :
 - a. Annual omzet and total sales for each category

```

1. Category : Beverages
1996 : Omzet = 53879.20
1997 : Omzet = 110424.00
1998 : Omzet = 122223.75
Total : 286527

```

```

2. Category : Condiments
1996 : Omzet = 19458.30
1997 : Omzet = 59679.00
1998 : Omzet = 34557.45
Total : 113695

```

```

3. Category : Confections
1996 : Omzet = 31511.60

```

```

Declare @CategoryName as nvarchar(15);
Declare @CategoryID as int;
Declare @Year as varchar(4);

```

```

Declare @Omzet as varchar(50);
Declare @Rows as int;
Declare @SubTotal as float;
Set @Rows = 1 ;
while @Rows <=(select count(*) from categories)
begin
    Select top (@Rows) @CategoryName=categoryname,
        @CategoryID =categoryid from categories;
    Print cast(@Rows as varchar(5)) + '. Category : ' + @CategoryName;
    Declare @Rows2 as int;
    Set @Rows2 = 1;
    Set @Subtotal=0;
    while @Rows2<=
        (select count(distinct year(orderdate)) from orders)
    begin
        Select distinct top (@Rows2) @Year=year(orderdate) from orders
            order by year(orderdate);
        Select @Omzet=sum(quantity*[order details].unitprice)
            from orders,[order details],products,categories where
            orders.orderid=[order details].orderid and
            [order details].productid=products.productid and
            products.categoryid = categories.categoryid and
            categories.categoryid=@categoryid and
            year(orderdate)=@Year;
        Print @Year + ' : ' +
            'Omzet = ' + @Omzet;
        Set @Rows2=@Rows2 + 1;
        Set @SubTotal=@SubTotal+@Omzet;
    end;
    Print 'Total : ' + cast(@SubTotal as varchar(30));
    Set @Rows=@Rows + 1;
    Print ' ';
end;
go

```

b. Total sales for each country in each category.

```

1. Category : Beverages
- Argentina : Omzet = 14384.00
- Austria : Omzet = 211616.40
- Belgium : Omzet = 46915.20
- Brazil : Omzet = 323204.00
- Canada : Omzet = 110637.60
- Denmark : Omzet = 96205.60
- Finland : Omzet = 17776.00
- France : Omzet = 109360.00
- Germany : Omzet = 461156.80
- Ireland : Omzet = 26715.20
- Italy : Omzet = 9240.00
- Mexico : Omzet = 64780.00
- Norway : Omzet = 22048.00
- Poland : Omzet = 6628.00
- Portugal : Omzet = 9523.20
- Spain : Omzet = 10905.60
- Sweden : Omzet = 107256.40
- Switzerland : Omzet = 18860.00
- UK : Omzet = 60769.60
- USA : Omzet = 506889.20
- Venezuela : Omzet = 57344.80

2. Category : Condiments

```



```

- Argentina : Omzet = 7256.00
- Austria : Omzet = 134419.20
- Belgium : Omzet = 21717.60
- Brazil : Omzet = 97112.00
- Canada : Omzet = 40084.80
- Denmark : Omzet = 35643.20
- Finland : Omzet = 14984.00
- France : Omzet = 57187.20
- Germany : Omzet = 139160.80
- Ireland : Omzet = 31188.00
- Italy : Omzet = 11586.00
- Mexico : Omzet = 9883.60
- Norway : Omzet = 1872.00
- Poland : Omzet = 5016.00
- Portugal : Omzet = 30955.60
- Spain : Omzet = 14315.60
- Sweden : Omzet = 39762.40
- Switzerland : Omzet = 16434.40
- UK : Omzet = 36608.40
- USA : Omzet = 148446.80
- Venezuela : Omzet = 15924.40

```

```

Declare @CategoryName as nvarchar(15);
Declare @CategoryID as int;
Declare @Country as nvarchar(15);
Declare @Omzet as varchar(50);
Declare @Rows as int;
Set @Rows = 1 ;
while @Rows <=(select count(*) from categories)
begin
    Select top (@Rows) @CategoryName=categoryname,
        @CategoryID =categoryid from categories;
    Print cast(@Rows as varchar(5)) + '. Category : ' + @CategoryName;
    Declare @Rows2 as int;
    Set @Rows2 = 1;
    while @Rows2<=
        (select count(distinct country) from customers )
    begin
        Declare @CustomerID as nchar(5);
        Select distinct top (@Rows2) @Country=country
            from customers order by country;
        Select @Omzet=sum(quantity*[order details].unitprice)
            from orders,[order details],products,customers,categories
    where
        orders.orderid=[order details].orderid and
        [order details].productid=products.productid and
        orders.customerid=customers.customerid and
        products.categoryid=@CategoryID and
        country=@Country;
        if cast(@Omzet as float)>0
        Print ' - ' + @Country + ' : ' +
            'Omzet = ' + cast(@Omzet as varchar(20));
        Set @Rows2=@Rows2 + 1;
    end;
    Set @Rows=@Rows + 1;
    Print ' ';
end;
go

```

Score : 15

3. Write down SQL statement to display data in following output samples :

a.

	Produce	1996	1997	1998
1	Total	15134.20	57718.55	32415.85

```

select 'Total' as 'Produce', [1996], [1997], [1998]
from
  (
    select year(orderdate) as [Year], Quantity*[order details].UnitPrice as
Qty from
orders, [order details], customers, products, categories
where orders.orderid=[order details].orderid and
orders.customerid=customers.customerid and
[order details].productid=products.productid and
products.categoryid=categories.categoryid and
categoryname='Produce'
  )
as DataAwal
pivot
(
  sum(DataAwal.Qty) for DataAwal.[Year] in
  ([1996],[1997],[1998])) as temp

```

b.

	Country	CategoryName	Percentage
1	Germany	Beverages	23.56
2	Germany	Condiments	7.11
3	Germany	Confections	15.45
4	Germany	Dairy Products	21.73
5	Germany	Grains/Cereals	5.96
6	Germany	Meat/Poultry	9.24
7	Germany	Produce	7.05
8	Germany	Seafood	9.87

```

select Country, CategoryName,
(
  sum(quantity*[order details].unitprice)/
  (select sum(quantity*[order details].unitprice) from
orders, [order details], products, categories, customers where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid =categories.categoryid and
orders.customerid=customers.customerid and
country = 'Germany' )*100
) as Percentage
from orders, [order details], products, categories, customers where
orders.orderid=[order details].orderid and
[order details].productid=products.productid and
products.categoryid =categories.categoryid and
orders.customerid=customers.customerid and

```

```
country = 'Germany'
group by country, categoryname
```

c.

	Name	Omzet	Percentage
1	Nancy Davolio	202143.71	14.92
2	Andrew Fuller	177749.26	13.12
3	Michael Suyama	78198.10	5.77
4	Janet Leverling	213051.30	15.72
5	Anne Dodsworth	82964.00	6.12
6	Margaret Peacock	250187.45	18.47
7	Laura Callahan	133301.03	9.84
8	Robert King	141295.99	10.43
9	Steven Buchanan	75567.75	5.57

```
select distinct firstname+' ' +lastname as [Name],
sum(quantity*[order details].unitprice) as Omzet,
(
sum(quantity*[order details].unitprice)/
(select sum(quantity*[order details].unitprice) from
orders,[order details],employees where
orders.orderid=[order details].orderid and
orders.employeeid=employees.employeeid )*100
) as Percentage
from orders,[order details],employees where
orders.orderid=[order details].orderid and
orders.employeeid=employees.employeeid
group by firstname+' ' +lastname
```

Score : 15

4. Create function to present total sales for each country in certain year. Output sample for country Mexico in year 1997.

	CompanyName	Total Sales
1	Ana Trujillo Emparedados y helados	799.75
2	Antonio Moreno Taquería	6452.15
3	Pericles Comidas clásicas	2065.4
4	Tortuga Restaurante	5523.35

```
create function AnnualBuyer
(@Year as varchar(20),@Country as nvarchar(15))
Returns @Buyer Table
(
    CompanyName nvarchar(40),
    [Total Sales] float)
as
begin
insert into @Buyer(CompanyName,[Total Sales])
```

```
select CompanyName, sum(quantity*unitprice) as [Total Sales] from
orders, [order details], customers where
orders.orderid=[order details].orderid and
orders.customerid=customers.customerid and
year(orderdate)=@Year and country=@Country
group by companyname, country
return
end

select * from annualbuyer(1997, 'Mexico')
```