

--We are working with a data warehouse that allows us to observe the sales of products of a company.

--The table schema is as follows:

--CUSTOMER (idcli, city, region, country)

Create schema Checkpoint3 ;

```
CREATE TABLE Checkpoint3.Customer (
    idcli INT IDENTITY (1, 1) PRIMARY KEY
    , city varchar (255)
    , region varchar (255)
    , country varchar (255)
);
```

--PRODUCT (product\_id, name, category, price\_of\_revs, price\_sales, supplier)

```
CREATE TABLE Checkpoint3.Product (
    product_id INT IDENTITY (1, 1) PRIMARY KEY
    , name VARCHAR (255)
    , category VARCHAR (255)
    , supplier VARCHAR (255)
    , price_of_revs Int
    , price_sales int
);
```

--DATE (idDate, month, nameMonth, quarter, year)

```
CREATE TABLE Checkpoint3.Date (
    idDate INT IDENTITY (1, 1) PRIMARY KEY
    , month VARCHAR (2)
    , nameMonth VARCHAR (25)
    , quarter VARCHAR (25)
    , year varchar (4)
);
```

--SALES(product id, date id, cli id, delivery\_date, quantity, amount)

```
CREATE TABLE Checkpoint3.Sales (
    productid INT
    , dateid Int
    , cliid Int Identity (1,1)
    , delivery_date DATE
    , quantity Int
    , amount int ,
FOREIGN KEY (cliid)
    REFERENCES Checkpoint3.Customer (idcli) ,
FOREIGN KEY (dateid)
    REFERENCES Checkpoint3.Date (idDate) ,
Foreign Key (productid)
    References checkpoint3.Product (product_id)
);
```

--1. Write a query to calculate the amount of sales by country.

-- final output: country, amount of sales

```
Select country
, SUM(s.amount) As amountofsales
From Checkpoint3.Sales as s
Left join Checkpoint3.customer c on c.idcli = s.cliid
Group by country
```

--2. Write a query that calculates the amount of sales per month of each year, then per year, and then in total.

```
Select nameMonth
, year
, sum (s.amount) as amountofsales
From Checkpoint3.Sales as s
Left join Checkpoint3.Date d on d.idDate = s.dateid
Group by ROLLUP (year, nameMonth)
```

--3. Write a query that allows you to calculate the quantity of the product sold "22 inch screen" by country, then by year, then by year to each country, then in totality.

```
Select country
, year
, sum (s.quantity) as quantityamount
From Checkpoint3.Sales as s
left join Checkpoint3.Date d on d.idDate = s.dateid
left join Checkpoint3.Product p on p.product_id = s.productid
left join Checkpoint3.Customer c on c.idcli = s.cliid
Where p.name = '22 inch screen'
Group by CUBE (country, year)
```

--4. Write a query that calculates the amount of sales by country, then by year, then by product.

```
Select country
, year
, productid
, sum (s.amount) as amountofsales
From Checkpoint3.Sales as s
left join Checkpoint3.Date d on d.idDate = s.dateid
left join Checkpoint3.Product p on p.product_id = s.productid
left join Checkpoint3.Customer c on c.idcli = s.cliid
Group by country, year, productid
```