**Section 1: Getting the overview of the data. Select from the given options for the questions.**

Check out the cardinality of following columns:  
  
1.1) Different color segments (categories) provided by the company.

SELECT COUNT(DISTINCT Item\_Category) FROM Item;

1.2) Different Coupon Types that are offered.

SELECT COUNT(DISTINCT couponType) FROM CouponMapping;

1.3) States where the company is currently delivering its products and services.

SELECT COUNT(DISTINCT State) FROM CityData;

1.4) Different Order Types.

SELECT COUNT(DISTINCT OrderType) FROM CustomerTransactionData;

Check which of the following options are correct in below questions. Identify total number of sales (transactions) happened by  
  
2.1) Yearly basis

SELECT YEAR(PurchaseDate),

COUNT(Trans\_Id) AS Total\_Trans

FROM CustomerTransactionData

GROUP BY YEAR(PurchaseDate);

2.2) Quarterly basis

SELECT EXTRACT(QUARTER FROM PurchaseDate),

COUNT(Trans\_Id) AS Total\_Trans

FROM CustomerTransactionData

GROUP BY EXTRACT(QUARTER FROM PurchaseDate);

2.3) Yearly and Monthly basis

SELECT EXTRACT(YEAR FROM PurchaseDate),

EXTRACT(MONTH FROM PurchaseDate),

COUNT(Trans\_Id) AS Total\_Trans

FROM CustomerTransactionData

GROUP BY EXTRACT(YEAR FROM PurchaseDate),EXTRACT(MONTH FROM PurchaseDate);

Identify the total purchase order by  
  
3.1) Product category

SELECT I.Item\_Category,

SUM(PurchasingAmt) AS Total\_Sales

FROM CustomerTransactionData AS C

JOIN

Item AS I

ON C.item\_id = I.item\_id

GROUP BY I.Item\_Category;

3.2) Yearly and Quarterly basis

SELECT EXTRACT(YEAR FROM PurchaseDate),

EXTRACT(QUARTER FROM PurchaseDate),

SUM(PurchasingAmt) AS Total\_Sales

FROM CustomerTransactionData

GROUP BY EXTRACT(YEAR FROM PurchaseDate), EXTRACT(QUARTER FROM PurchaseDate);

3.3) Order Type

SELECT OrderType,

SUM(PurchasingAmt) AS Total\_Sales

FROM CustomerTransactionData

GROUP BY OrderType;

3.4) City Tier

SELECT CityTier,

SUM(PurchasingAmt) AS Total\_Sales

FROM CustomerTransactionData AS CT

JOIN

Customer AS C

ON C.Customer\_Id = CT.Cust\_Id

JOIN CityData

ON CityData.City\_Id = C.City\_Id

GROUP BY CityTier;