# **Business Questions and Answers**

### 1. Total revenue

```
SELECT FORMAT(SUM([revenue]), 'NO')AS total_revenue
FROM [dbo].[customer_shopping_data]
total_revenue

251,478,997
```

### 2. Total revenue for each year

```
SELECT [year], FORMAT(SUM([revenue]), 'N0')AS total_revenue
FROM [dbo].[customer_shopping_data]
GROUP BY [year]
year total_revenue
2021 114.548.134
2022 115.424.734
2023 21,506,129
```

### 3. Number of shopping malls

SELECT DISTINCT ([shopping\_mall])
FROM[dbo].[customer\_shopping\_data]

	shopping_mall	
1	Metropol AVM	
2	Forum Istanbul	
3	Viaport Outlet	
4	Metrocity	
5	Kanyon	
6	Mall of Istanbul	
7	Cevahir AVM	
8	Zorlu Center	
9	Istinye Park	
10	Emaar Square Mall	

### 4. Revenue by shopping mall

```
|SELECT [shopping_mall] , FORMAT(SUM ([revenue]), 'N0') AS 'revenue generated'
FROM [dbo].[customer_shopping_data]
GROUP BY [shopping_mall]
ORDER BY 'revenue generated' DESC
 Results 📳 Messages
      shopping mall
                     revenue generated
 1
      Mall of Istanbul
                     50,867,162
 2
       Kanyon
                     50,548,901
 3
       Metrocity
                     37,298,757
 4
       Metropol AVM
                     25,377,193
 5
       Istinye Park
                     24,616,289
 6
       Zorlu Center
                     12,899,633
 7
       Cevahir AVM
                     12,643,775
 8
       Viaport Outlet
                     12,519,960
 9
       Emaar Squar...
                     12,404,776
 10
       Forum Istanbul
                     12,302,551
```

### 5. Quantity sold by shopping mall

```
⇒SELECT [shopping_mall] , FORMAT(SUM ([quantity]), 'N0') AS 'total quantity sold'

 FROM [dbo].[customer_shopping_data]
 GROUP BY [shopping_mall]
 ORDER BY 'total quantity sold' DESC
Results Messages
     shopping_mall
                    total quantity sold
1
     Mall of Istanbul
                    60,114
2
     Kanyon
                     59,457
3
     Metrocity
                     44,894
4
     Metropol AVM
                     30,530
5
     Istinye Park
                     29,465
6
     Zorlu Center
                     15,234
7
     Cevahir AVM
                    14,949
8
     Forum Istanbul
                   14,852
9
     Viaport Outlet
                     14,716
     Emaar Squar...
10
                   14,501
```

### 6. Total quantity sold by day\_of\_week

```
SELECT [day_of_week], FORMAT(SUM ([quantity]),'N0') AS 'total quantity sold'
FROM [dbo].[customer_shopping_data]
GROUP BY[day_of_week]
ORDER BY 'total quantity sold' DESC
 day of week
             total quantity sold
 Monday
              43,568
 Friday
              43,075
 Tuesday
              42,822
 Thursday
              42,469
 Wednesday
              42,443
 Sunday
              42,179
 Saturday
              42,156
```

### 7. Most common payment method

```
SELECT[payment_method], COUNT([payment_method]) AS 'no of times used'
FROM [dbo].[customer_shopping_data]
GROUP BY [payment_method]
ORDER BY 'no of times used' DESC

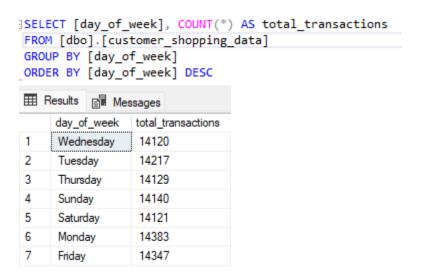
payment_method no of times used

Cash 44447

Credit Card 34931

Debit Card 20079
```

### 8. Busiest shopping days



### 9. Average price per product category

```
|SELECT category, ROUND (AVG(price), 2) AS avg_price
FROM [dbo].[customer_shopping_data]
GROUP BY category
ORDER BY avg_price DESC;
```

Results Results Messages				
	category	avg_price		
1	Technology	3156.94		
2	Shoes	1807.39		
3	Clothing	901.08		
4	Cosmetics	122.45		
5	Toys	107.73		
6	Books	45.57		
7	Souvenir	34.89		
8	Food & Beverage	15.67		

### 10. Revenue by product category

```
3SELECT [category], SUM([revenue]) AS 'total revenue'
FROM[dbo].[customer_shopping_data]
GROUP BY[category]
ORDER BY 'total revenue' DESC
```

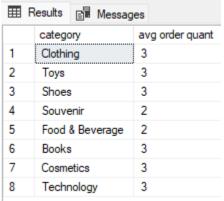
⊞ F	Results 📳 Messag	ges
	category	total quantity sold
1	Clothing	103558
2	Cosmetics	45465
3	Food & Beverage	44277
4	Toys	30321
5	Shoes	30217
6	Technology	15021
7	Books	14982
8	Souvenir	14871

### 11. Total quantity sold by product category

```
|SELECT [category], SUM([quantity]) AS 'total quantity sold'
FROM[dbo].[customer_shopping_data]
GROUP BY[category]
ORDER BY 'total quantity sold' DESC
  category
                  total quantity sold
                   103558
  Clothing
  Cosmetics
                   45465
                   44277
  Food & Beverage
  Toys
                   30321
  Shoes
                   30217
  Technology
                   15021
  Books
                   14982
  Souvenir
                   14871
```

### 12. Average order quantity by product category

```
SELECT[category], AVG([quantity]) AS 'avg order quant'
FROM[dbo].[customer_shopping_data]
GROUP BY [category]
```

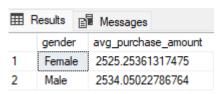


#### 13. Gender distribution

```
| SELECT [gender], COUNT([gender]) AS 'population'
| FROM[dbo].[customer_shopping_data] |
| GROUP BY [gender] |
| ORDER BY 'population' DESC |
| Results | Messages | |
| gender | population |
| 1 | Female | 59482 |
| 2 | Male | 39975 |
```

### 14. Average purchase amount by gender

```
[SELECT gender, AVG(quantity * price) AS avg_purchase_amount
FROM [dbo].[customer_shopping_data]
GROUP BY gender
ORDER BY avg_purchase_amount
```



### 15. Most common product category by gender

```
| SELECT gender, category, COUNT(*) AS total_transactions
| FROM [dbo].[customer_shopping_data]
| GROUP BY gender, category
| ORDER BY gender, total_transactions DESC;
```

ONDER BY gender, total_transactions best,						
⊞ F	Results					
	gender	category	total_transactions			
1	Female	Clothing	20652			
2	Female	Cosmetics	9070			
3	Female	Food & Beverage	8804			
4	Female	Toys	6085			
5	Female	Shoes	5967			
6	Female	Souvenir	3017			
7	Female	Technology	2981			
8	Female	Books	2906			
9	Male	Clothing	13835			
10	Male	Cosmetics	6027			
11	Male	Food & Beverage	5972			
12	Male	Shoes	4067			
13	Male	Toys	4002			
14	Male	Books	2075			
15	Male	Technology	2015			
16	Male	Souvenir	1982			

## 16. Age group distribution

```
|SELECT [age_group], COUNT([age_group]) AS 'population'
FROM[dbo].[customer_shopping_data]
GROUP BY[age_group]
ORDER BY 'population' DESC
```

⊞ F	Results 📳	Messages
	age_group	population
1	55-69	28430
2	35-44	19401
3	25-34	19081
4	45-54	19049
5	18-24	13496