***#Use Database***

use shopping\_trend;

*#View Data*

select \*

from shopping\_trends;

***#Divide age groups into groups.Count the number of people in each age group and their consumption levels.***

select

case when Age<20 then 'under 20' *#Divide age groups into groups.*

when Age<40 and Age>=20 then '20-40'

when Age<60 and Age>=40 then '40-60'

when Age>=60 then '60 and 60+'

end as Age\_Group,

Avg(`Purchase Amount (USD)`) as Avg\_Spend, *#average consumption levels*

count(\*) as total\_Customers *#Count the number of people in each age group*

from shopping\_trends

group by Age\_Group;

***#Statistics on purchase volume and average purchase amount by gender.***

select Gender, COUNT(\*) as purchase\_count, Avg(`Purchase Amount (USD)`) as Avg\_Spend

from shopping\_trends

group by Gender;

***#Statistics on the purchasing preferences of different genders in different product categories.***

select Gender, Category, Count(\*) as Purchases

from shopping\_trends

group by Gender, Category

order by Category;

***#Count different product categories and purchase quantities.***

select Category, count(\*) as purchase\_count

from shopping\_trends

group by Category

order by purchase\_count;

***# Count different product categories and purchase amounts.***

select Category, sum(`Purchase Amount (USD)`) as total\_spend

from shopping\_trends

group by Category

order by total\_spend;

***#Statistics on the categories and quantities of goods purchased by different age groups***

Select

case when Age<20 then 'under 20' *#Divide age groups into groups.*

when Age>=20 and Age<40 then '20-40'

when Age>=40 and Age<60 then '40-60'

when Age>=60 then '60 and 60+'

end as Age\_Group,

Category,

Count(\*) as purchase  *#Count the number of purchases*

from shopping\_trends

group by Age\_Group, Category

order by Age\_Group, purchase desc;

***#Number of purchases by location.***

select Location, count(\*) as purchase\_count

from shopping\_trends

group by Location

order by purchase\_count;

***#Payment method preferences by location.***

select Location, `Payment Method`, count(distinct `Customer ID`) as unique\_customer

from shopping\_trends

group by Location, `Payment Method`

order by Location;

***#Statistics on the purchase amount ranking of each location.***

select Location,sum(`Purchase Amount (USD)`) as total\_spend, *#ranking of each location↓*

rank()over(order by sum(`Purchase Amount (USD)`) desc) as rank\_by\_spend

from shopping\_trends

group by Location;

***#Average customer spending by location***

select Location,sum(`Purchase Amount (USD)`) as total\_spend, *#Average↓*

avg(sum(`Purchase Amount (USD)`)) over (partition by Location) as avg\_spend

from shopping\_trends

group by Location;

***#Filter the highest spending locations and spending amounts***

select Location,sum(`Purchase Amount (USD)`) as total\_spend

from shopping\_trends

group by Location *#Equal to the maximum value↓*

having sum(`Purchase Amount (USD)`)=

(select max(total\_spend) *# Equal to the maximum value*

from *#Comsumption amount by region↓*

(select Location, sum(`Purchase Amount (USD)`) as total\_spend

from shopping\_trends

group by Location) as sub

);

***#Filter customer IDs and spending amounts whose spending is higher than the average.***

select `Customer ID`, `Purchase Amount (USD)` *# More than average consumption*

from shopping\_trends

where `Purchase Amount (USD)`>

(select avg(`Purchase Amount (USD)`) *#Average consumption*

from shopping\_trends)