# Simple Aggregation and Grouping- Task 3

RDBMS used : MySql

- **Displaying data in "products" table**

select * from products;

| prod_id | prod_name | category | price | color | size | gender |
|---|---|---|---|---|---|---|
| 1001 | sneakers | casual | 2500 | dark brown | 6 | 1 |
| 1002 | loafers | formal | 3500 | deep black | 7 | 1 |
| 1003 | boots | semi-formal | 3000 | black | 5 | 0 |
| 1004 | flip-flops | casual | 500 | blue | 5 | 0 |
| NULL | NULL | NULL | NULL | NULL | NULL | NULL |

- **Using Aggregate functions and GROUP BY**

### i. MIN/MAX

select min(price) as Minimum_Price from products;

| Minimum_Price |
|---|
| 500 |

select max(size) from products;

| max(size) |
|---|
| 7 |

select max(price) from products where gender=0;

| max(price) |
|---|
| 3000 |

select category, min(price) from products group by category;

| category | min(price) |
|---|---|
| casual | 500 |
| formal | 3500 |
| semi-formal | 3000 |

### ii. COUNT

select count(*) from products;

| count(*) |
|---|
| 4 |

select category, count(prod_name) as Prod_Count from products group by category;

| category | Prod_Count |
|---|---|
| casual | 2 |
| formal | 1 |
| semi-formal | 1 |

SELECT gender, count(DISTINCT prod_name) as Gender_wise_count from products group by gender;

| gender | Gender_wise_count |
|---|---|
| 0 | 2 |
| 1 | 2 |

### iii. SUM

select sum(price) as TOTALPRICE from products;

| TOTALPRICE |
|---|
| 9500 |

select category, sum(price) as TOTALPRICE from products group by category;

| category | TOTALPRICE |
|---|---|
| casual | 3000 |
| formal | 3500 |
| semi-formal | 3000 |

### iv. AVG

select avg(price) from products where gender=1;

| avg(price) |
|---|
| 3000.0000 |

select category, avg(price) as AVGPRICE from products group by category;

| category | AVGPRICE |
|---|---|
| casual | 1500.0000 |
| formal | 3500.0000 |
| semi-formal | 3000.0000 |

- **Using HAVING clause**

select category, sum(price) from products group by category having sum(price)>3000;

| category | sum(price) |
|---|---|
| formal | 3500 |

select category, count(prod_name) as Prod_Count from products group by category having Prod_Count<2;

| category | Prod_Count |
|---|---|
| formal | 1 |
| semi-formal | 1 |