**Basic Query:**

1. SELECT first\_name, last\_name, email FROM Customers;

**2**. SELECT

c.customer\_id,

c.first\_name,

c.last\_name,

COUNT(o.order\_id) AS total\_orders

FROM

Customers c

LEFT JOIN

Orders o ON c.customer\_id = o.customer\_id

GROUP BY

c.customer\_id, c.first\_name, c.last\_name;

**3.** SELECT product\_name, price FROM Products;

4. SELECT c.category\_id, c.category\_name, COUNT(p.product\_id) AS product\_count

FROM Categories c

JOIN Products p ON c.category\_id = p.category\_id

GROUP BY c.category\_id, c.category\_name

ORDER BY product\_count DESC

LIMIT 1;

**Intermediate Queries:**

1. SELECT Customers.\* FROM Customers LEFT JOIN Orders ON Customers.customer\_id = Orders.customer\_id WHERE Orders.customer\_id IS NULL;
2. SELECT \* FROM Products ORDER BY price DESC LIMIT 1; (Highest Price)  
   SELECT \* FROM Products ORDER BY price ASC LIMIT 1; (Lowest Price)
3. SELECT c.customer\_id, c.first\_name, c.last\_name, AVG(o.total\_amount) AS average\_order\_amount FROM Customers c JOIN Orders o ON c.customer\_id = o.customer\_id GROUP BY c.customer\_id, c.first\_name, c.last\_name;
4. SELECT Categories.category\_id, Categories.category\_name FROM Categories LEFT JOIN Products ON Categories.category\_id = Products.category\_id WHERE Products.category\_id IS NULL;

**Advanced Queries:**

1. SELECT DISTINCT c.customer\_id, c.first\_name, c.last\_name FROM Customers c JOIN Orders o ON c.customer\_id = o.customer\_id JOIN Products p ON o.order\_id = p.product\_id WHERE p.price > 100;
2. SELECT DISTINCT c.customer\_id, c.first\_name, c.last\_name FROM Customers c JOIN Orders o ON c.customer\_id = o.customer\_id JOIN Products p ON o.product\_id = p.product\_id JOIN Categories cat ON p.category\_id = cat.category\_id GROUP BY c.customer\_id HAVING COUNT(DISTINCT cat.category\_id) >= 3;
3. SELECT p.product\_id, p.product\_name, AVG(r.rating) AS average\_rating FROM Products p JOIN Ratings r ON p.product\_id = r.product\_id GROUP BY p.product\_id, p.product\_name ORDER BY average\_rating DESC LIMIT 1;  
     
   SELECT p.product\_id, p.product\_name, AVG(r.rating) AS average\_rating FROM Products p JOIN Ratings r ON p.product\_id = r.product\_id GROUP BY p.product\_id, p.product\_name ORDER BY average\_rating ASC LIMIT 1;
4. SELECT c.category\_id, c.category\_name, SUM(p.price) AS total\_revenue FROM Categories c JOIN Products p ON c.category\_id = p.category\_id JOIN Orders o ON p.product\_id = o.product\_id GROUP BY c.category\_id, c.category\_name;