

Day 3

Problem Statement:

write a sql query to report the id and names of customers who bought products “c”,
“b” but did not buy the product “a” since we want to recommend them buy this product.
return the result table ordered by customer_id.

Solution Code:

```
/*Using IVY internship database*/  
use ivy_sql_internship;  
  
/*Creating table Customer and Order*/  
create table Customer  
(  
Customer_id int,  
Customer_Name varchar(100),  
constraint customer_primary_key primary key (Customer_id)  
);  
  
create table orders  
(  
order_id int,  
CustomerID int,  
product_name varchar(100),  
constraint order_primary_key primary key (order_id),  
constraint order_foreign_key foreign key (CustomerID) references Customer(Customer_id)  
);  
  
/*inserting values in the tables*/  
insert into Customer(Customer_id, Customer_Name)  
values (1, "Mary"), (2, "John"), (3, "Peter"), (4, "Lisa");  
  
insert into orders(order_id, CustomerID, product_name)  
values
```

```
(10,1,"A"),(20,1,"B"),(30,1,"D"),(40,1,"C"),
(50,2,"A"),(60,3,"A"),(70,3,"B"),(80,3,"D"),(90,4,"C")
;
```

```
/*write an sql query to report the id and names of customers who bought products "c",
"b" but did not buy the product "a" since we want to recommend them buy this product.
return the result table ordered by customer_id. */
```

```
SELECT DISTINCT Customer_id, Customer_Name
FROM customer c
JOIN orders o
ON o.CustomerID = c.Customer_id
WHERE customer_id IN (SELECT CustomerID FROM orders WHERE product_name = 'C')
AND customer_id IN (SELECT CustomerID FROM orders WHERE product_name = 'B')
AND customer_id NOT IN (SELECT CustomerID FROM orders WHERE product_name = 'A')
ORDER BY 1;
```

Screenshot of the Code:

The screenshot shows the MySQL Workbench interface. The main editor displays the following SQL query:

```

25 ;
26 /*write an sql query to report the id and names of customers who bought products "c",
27 "b" but did not buy the product "a" since we want to recommend them buy this product.
28 return the result table ordered by customer_id. */
29
30 SELECT DISTINCT Customer_id, Customer_Name
31 FROM customer c
32 JOIN orders o
33 ON o.CustomerID = c.Customer_id
34 WHERE customer_id IN (SELECT CustomerID FROM orders WHERE product_name = 'C')
35 AND customer_id IN (SELECT CustomerID FROM orders WHERE product_name = 'B')
36 AND customer_id NOT IN (SELECT CustomerID FROM orders WHERE product_name = 'A')
37 ORDER BY 1;
38
39
40

```

The left sidebar shows the 'SCHEMAS' panel with the 'ivy_sql_internship' database selected. The 'Table: orders' is highlighted, showing its columns: 'order_id' (int PK), 'CustomerID' (int), and 'product_name' (varchar(1)).

The bottom panel shows the 'Result Grid' with the following data:

Customer_id	Customer_Name
10	A
20	B
30	D
40	C
50	A
60	A
70	B
80	D
90	C