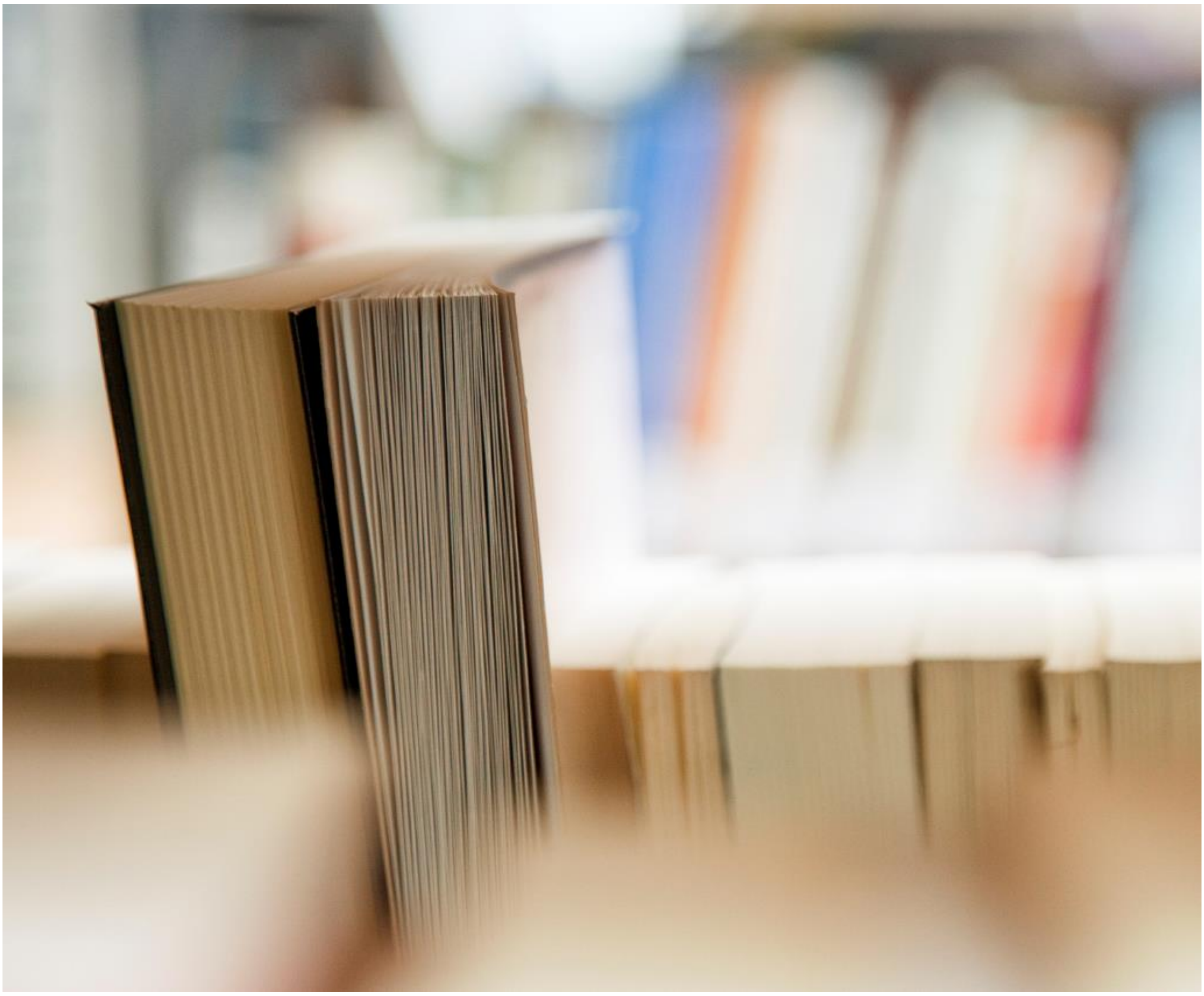
9



Cognizant Hands-On

COHORT CODE- INTEAS22OSP002

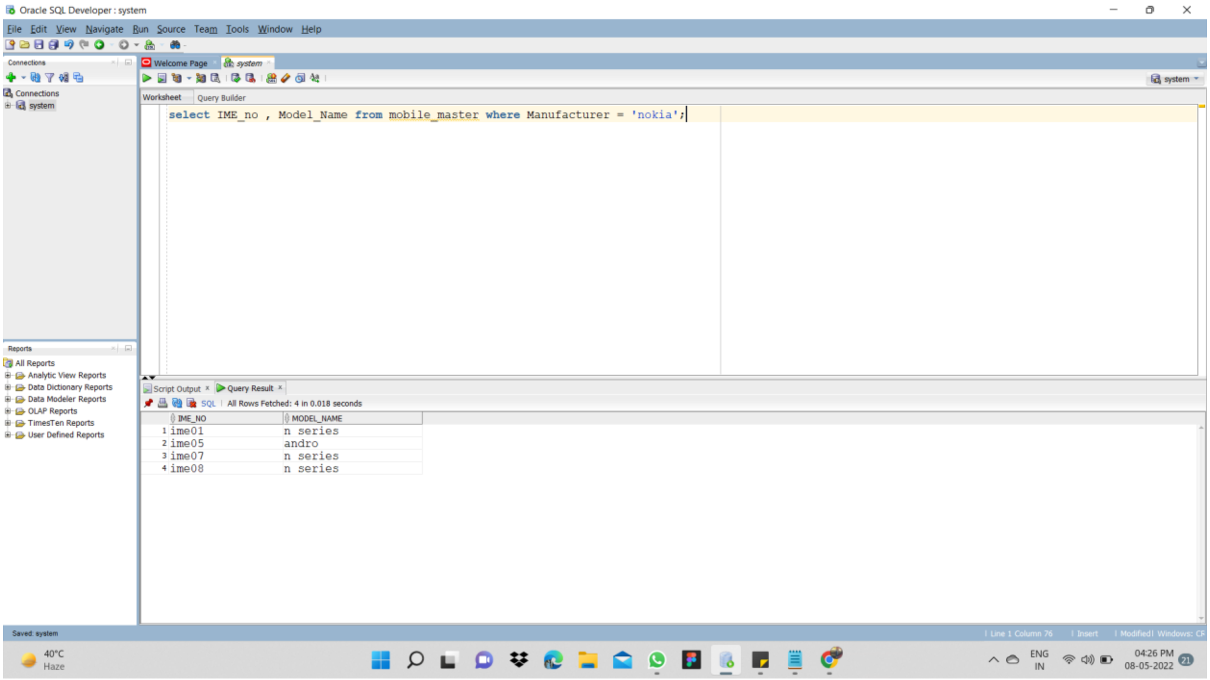
Ruchika Ramesh Jha 5/9/22 ORACLE/SQL

SQL USING ORACLE

1. Write a Query to Display the IME Number, Model Name of mobiles which is manufactured by "Nokia".

Solution:

select IME_no , Model_Name from mobile_master where Manufacturer = 'nokia';



```
select IME_no , Model_Name from mobile_master where Manufacturer = 'nokia';
```

All Rows Fetched: 4 in 0.018 seconds

```
   IME_NO       MODEL_NAME
 1 ime01        n series
 2 ime05        andro
 3 ime07        n series
 4 ime08        n series
```

2. Write a Query to display IME number, Model Name, Manufacturer and Camera Quality of mobiles whose camera quality is 5MP.

Solution:

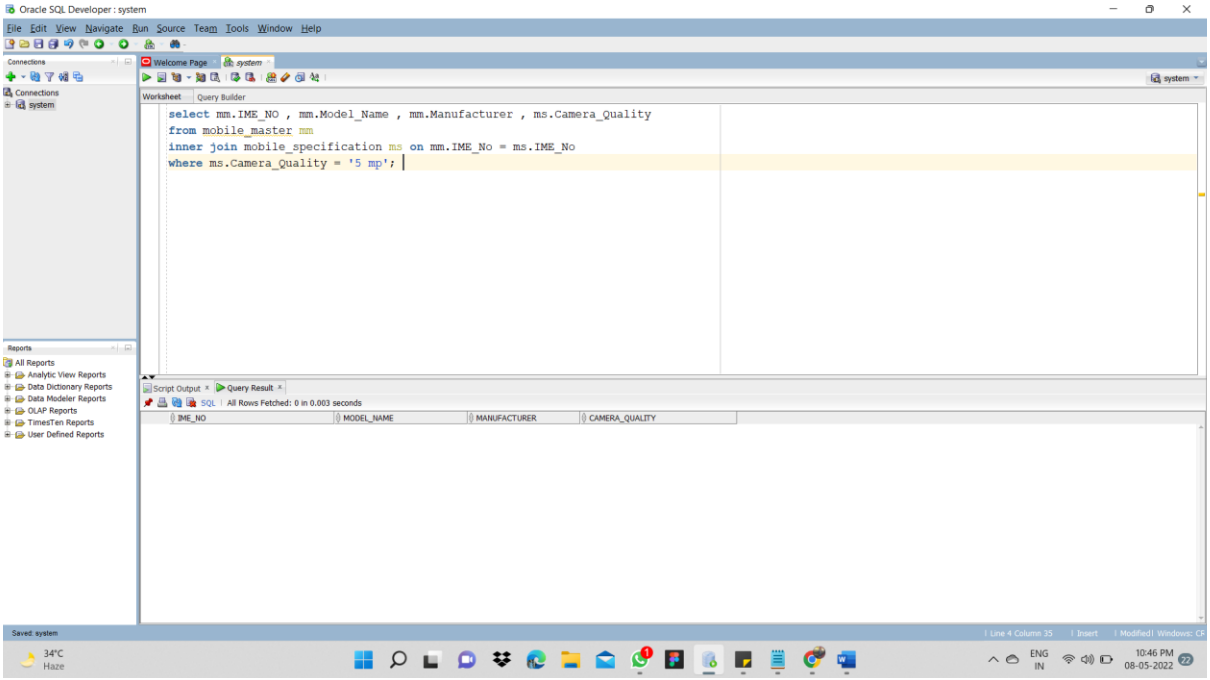
select mm.IME_NO , mm.Model_Name , mm.Manufacturer , ms.Camera_Quality

from mobile_master mm

inner join mobile_specification ms on mm.IME_No = ms.IME_No

where ms.Camera_Quality = '5 mp';

QUERY IS EMPTY BECAUSE WE DID NOT HAVE ANY MOBILE WHOSE QUALITY IS 5MP IN TABLE.



```
select mm.IME_NO , mm.Model_Name , mm.Manufacturer , ms.Camera_Quality
from mobile_master mm
inner join mobile_specification ms on mm.IME_No = ms.IME_No
where ms.Camera_Quality = '5 mp';
```

All Rows Fetched: 0 in 0.003 seconds

IME_NO	MODEL_NAME	MANUFACTURER	CAMERA_QUALITY

3. "Write a Query to display the Mobile Model Name and respective number of mobiles sold on the date 23-Apr-2012 for each mobile model.

Hint: For example, if 2 ""Nokia 1100"" and 1 ""Nokia C5-03"" are sold on the date 23-Apr-2012 then display both the records. Use ""NoofMobilesSold"" as alias name for the number of mobiles field."

Solution:

select mm.Model_Name as "Mobile Model Name" , count(mm.Model_Name) as "Number of mobiles sold"

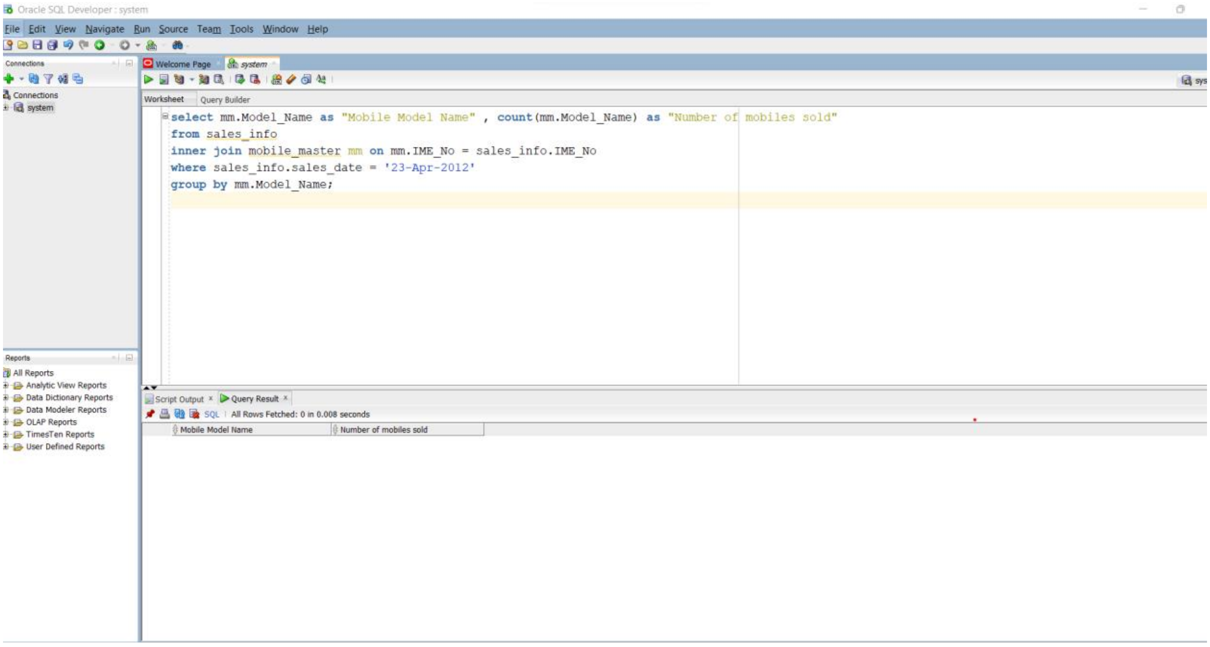
from sales_info

inner join mobile_master mm on mm.IME_No = sales_info.IME_No

where sales_info.sales_date = '23-Apr-2012'

group by mm.Model_Name;

QUERY IS EMPTY BECAUSE WE DID NOT HAVE ANY RELATED DATA IN THE TABLE.



```
select mm.Model_Name as "Mobile Model Name" , count(mm.Model_Name) as "Number of mobiles sold"
from sales_info
inner join mobile_master mm on mm.IME_No = sales_info.IME_No
where sales_info.sales_date = '23-Apr-2012'
group by mm.Model_Name;
```

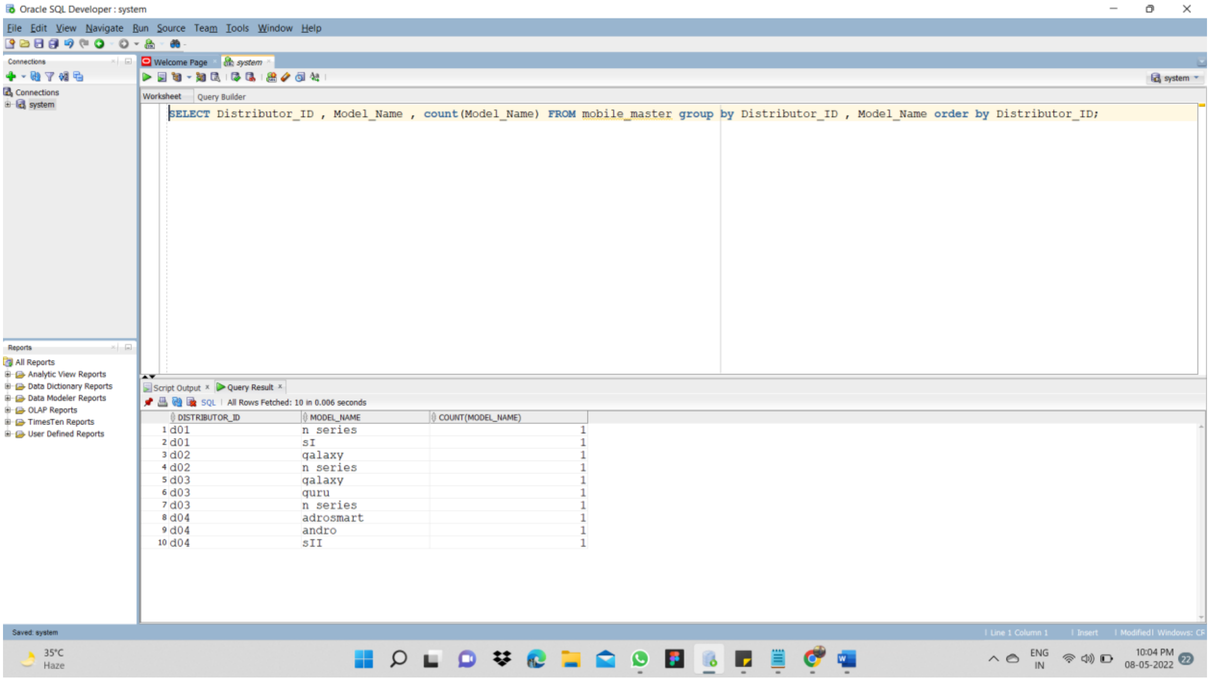
All Rows Fetched: 0 in 0.008 seconds

Mobile Model Name	Number of mobiles sold

4. "Write a Query to display the distributor id, mobile model name, number of mobiles of the particular model name supplied to the distributors group by model name and distributor id and sort by the distributor id.

Solution:

SELECT Distributor_ID, Model_Name, count(Model_Name) FROM mobile_master group by Distributor_ID , Model_Name order by Distributor_ID;



```
SELECT Distributor_ID , Model_Name , count(Model_Name) FROM mobile_master group by Distributor_ID , Model_Name order by Distributor_ID;
```

All Rows Fetched: 10 in 0.006 seconds

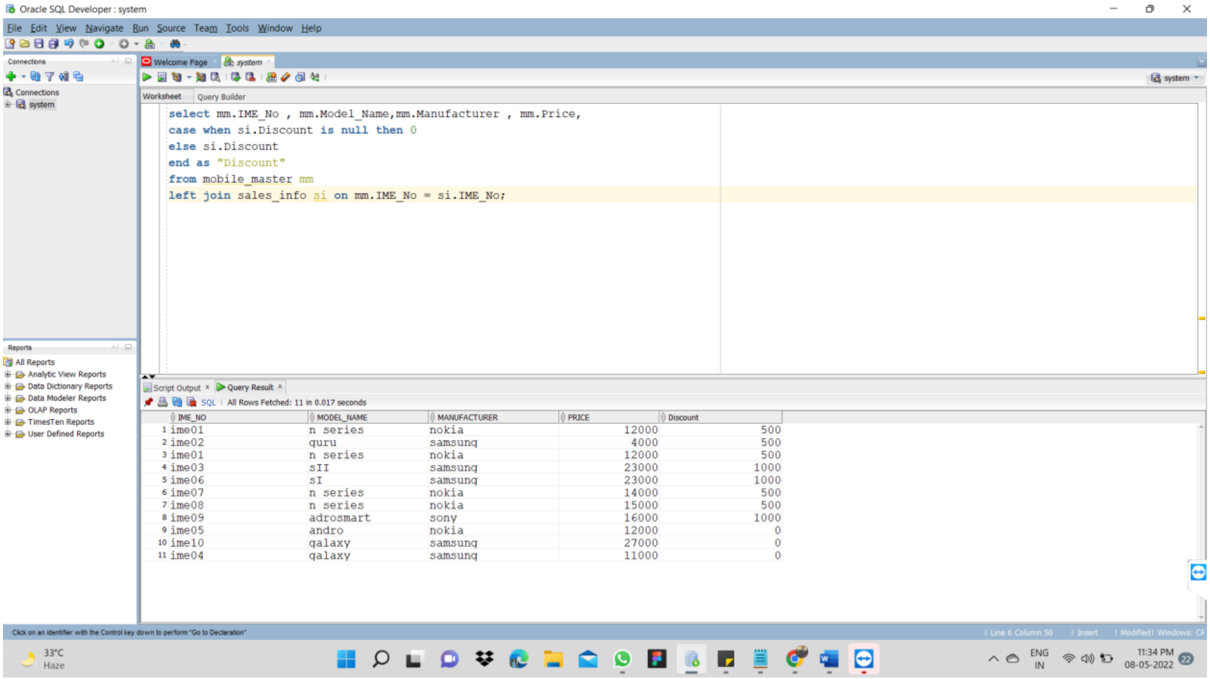
	DISTRIBUTOR_ID	MODEL_NAME	COUNT(MODEL_NAME)
1	d01	n series	1
2	d01	sI	1
3	d02	qalaxy	1
4	d02	n series	1
5	d03	qalaxy	1
6	d03	quru	1
7	d03	n series	1
8	d04	adrosmart	1
9	d04	andro	1
10	d04	sII	1

5. "Write a Query to display the IME number, model name, manufacturer, price and discount of all mobiles regardless of whether the mobile is sold or not. Hint: Fetch the price, IME no and model name from mobile_master table.

Example: For the mobile model ""Samsung GalaxyTAB with IME NO ""MC1000103"" is sold and other with IME No ""MC1000110"" is not sold. Then both the mobiles' details namely IME number, model name, manufacturer, price and discount needs to be displayed. "

Solution:

```
select mm.IME_No , mm.Model_Name,mm.Manufacturer , mm.Price,
case when si.Discount is null then 0
else si.Discount
end as "Discount"
from mobile_master mm
left join sales_info si on mm.IME_No = si.IME_No;
```



```
select mm.IME_No , mm.Model_Name,mm.Manufacturer , mm.Price,
case when si.Discount is null then 0
else si.Discount
end as "Discount"
from mobile_master mm
left join sales_info si on mm.IME_No = si.IME_No;
```

All Rows Fetched: 11 in 0.017 seconds

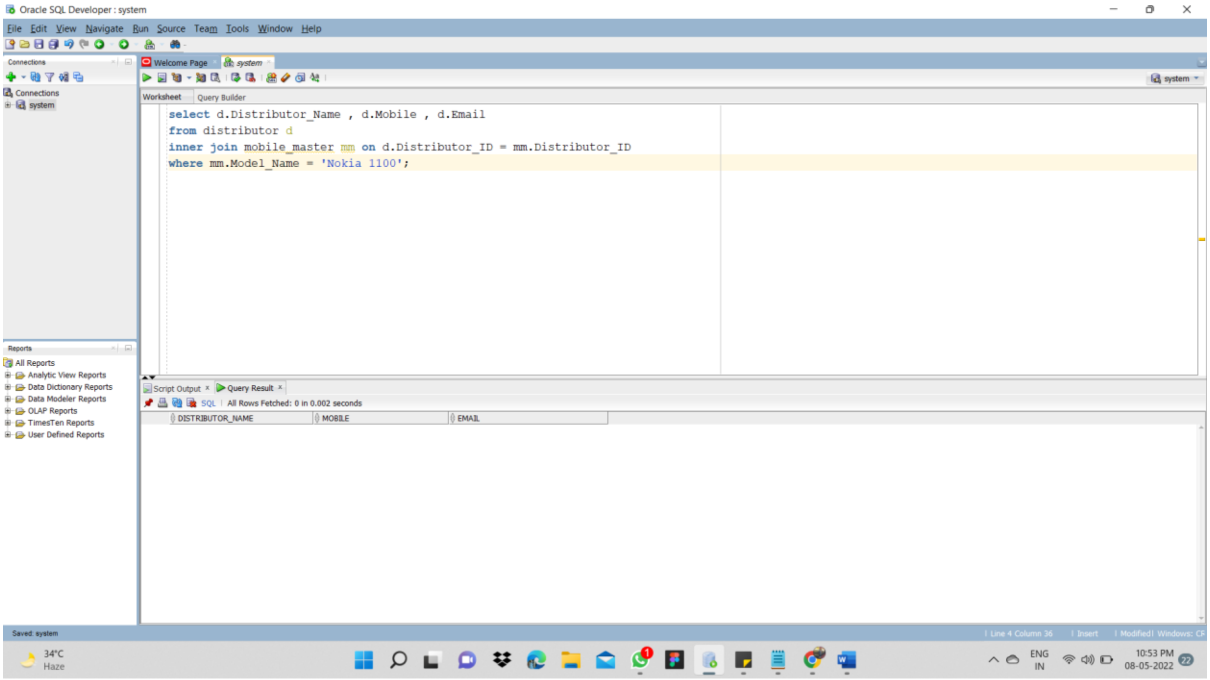
	IME_NO	MODEL_NAME	MANUFACTURER	PRICE	Discount
1	ime01	n series	nokia	12000	500
2	ime02	guru	samsung	4000	500
3	ime01	n series	nokia	12000	500
4	ime03	sII	samsung	23000	1000
5	ime06	sI	samsung	23000	1000
6	ime07	n series	nokia	14000	500
7	ime08	n series	nokia	15000	500
8	ime09	adrosmart	sony	16000	1000
9	ime05	andro	nokia	12000	0
10	ime10	galaxy	samsung	27000	0
11	ime04	galaxy	samsung	11000	0

6. Write a Query to display the distributor name, mobile number and email of distributors selling model 'Nokia 1100'.

Solution:

```
select d.Distributor_Name , d.Mobile , d.Email
from distributor d
inner join mobile_master mm on d.Distributor_ID = mm.Distributor_ID
where mm.Model_Name = 'Nokia 1100';
```

QUERY IS EMPTY BECAUSE WE DID NOT HAVE ANY RELATED DATA IN THE TABLE.



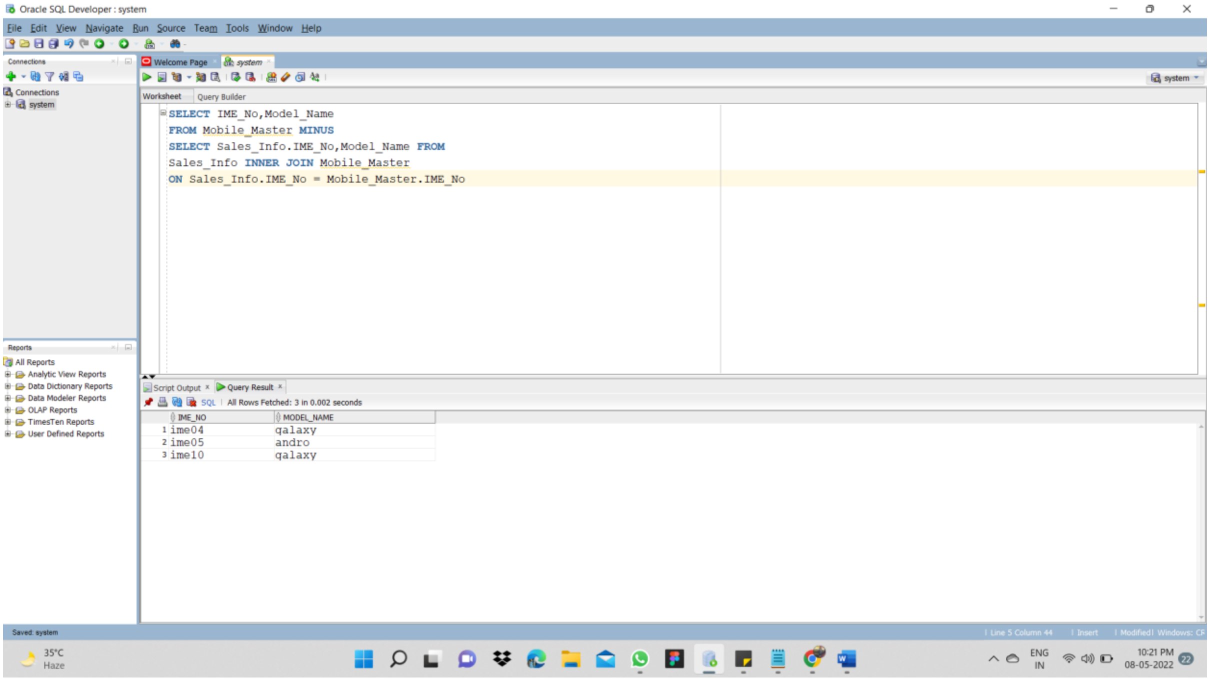
```
select d.Distributor_Name , d.Mobile , d.Email
from distributor d
inner join mobile_master mm on d.Distributor_ID = mm.Distributor_ID
where mm.Model_Name = 'Nokia 1100';
```

```
All Rows Fetched: 0 in 0.002 seconds

DISTRIBUTOR_NAME    MOBILE    EMAIL
```

7. Write a Query to display the IME Number and Model Name of mobiles which are not sold. Hint: The details of the sold mobiles are available in the "SALES_INFO" table and the overall mobile models are available in the mobile_master table.

Solution:

```
SELECT IME_No,Model_Name

FROM Mobile_Master MINUS

SELECT Sales_Info.IME_No,Model_Name FROM

Sales_Info INNER JOIN Mobile_Master

ON Sales_Info.IME_No = Mobile_Master.IME_No;
```



```
SELECT IME_No,Model_Name
FROM Mobile_Master MINUS
SELECT Sales_Info.IME_No,Model_Name FROM
Sales_Info INNER JOIN Mobile_Master
ON Sales_Info.IME_No = Mobile_Master.IME_No
```

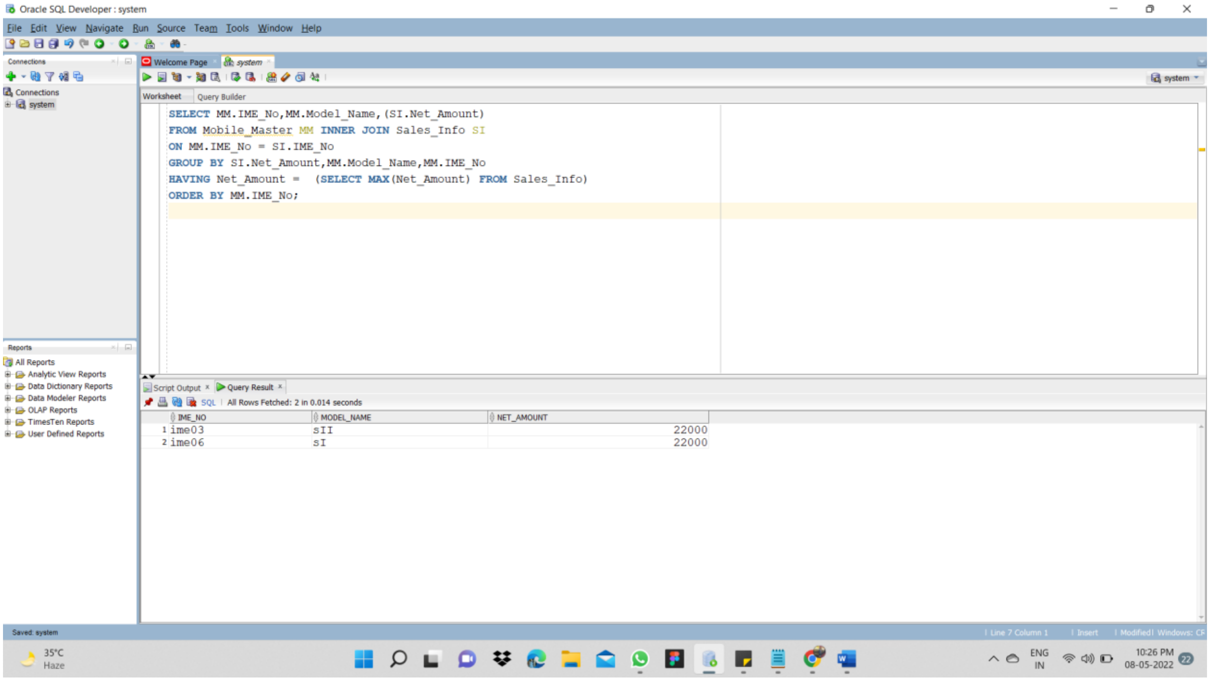
All Rows Fetched: 3 in 0.002 seconds

```
     IME_NO    MODEL_NAME
   1 ime04     galaxy
   2 ime05     andro
   3 ime10     galaxy
```

8. Write a Query to display the IME Number, Model Name and net amount of the mobile which has the highest net amount.

Solution:

```
SELECT MM.IME_No,MM.Model_Name,(SI.Net_Amount)

FROM Mobile_Master MM INNER JOIN Sales_Info SI

ON MM.IME_No = SI.IME_No

GROUP BY SI.Net_Amount,MM.Model_Name,MM.IME_No

HAVING Net_Amount =  (SELECT MAX(Net_Amount) FROM Sales_Info)

ORDER BY MM.IME_No;
```



```
SELECT MM.IME_No,MM.Model_Name,(SI.Net_Amount)
FROM Mobile_Master MM INNER JOIN Sales_Info SI
ON MM.IME_No = SI.IME_No
GROUP BY SI.Net_Amount,MM.Model_Name,MM.IME_No
HAVING Net_Amount =  (SELECT MAX(Net_Amount) FROM Sales_Info)
ORDER BY MM.IME_No;
```

All Rows Fetched: 2 in 0.014 seconds

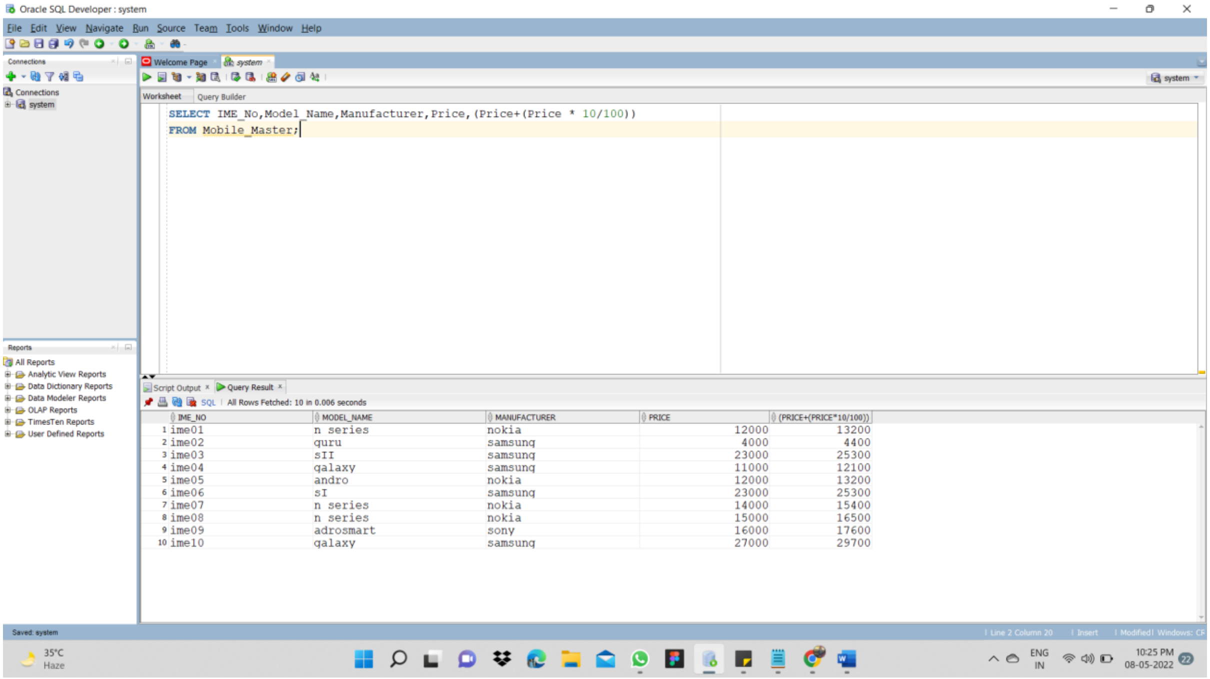
```
   IME_NO      MODEL_NAME     NET_AMOUNT
 1 ime03       sII                 22000
 2 ime06       sI                  22000
```

9. "Write a Query to display the IME Number, Model Name, Manufacturer, Price and New Price of all mobiles.

Hint: Fetch the price, name and IME number from mobile master table. Add 10% to the old price to find new price and display with alias name ""NewPrice"". Formula = price + (price * 10/100)"

Solution:

```
SELECT IME_No,Model_Name,Manufacturer,Price,(Price+(Price * 10/100))
FROM Mobile_Master
```



```
SELECT IME_No,Model_Name,Manufacturer,Price,(Price+(Price * 10/100))
FROM Mobile_Master;
```

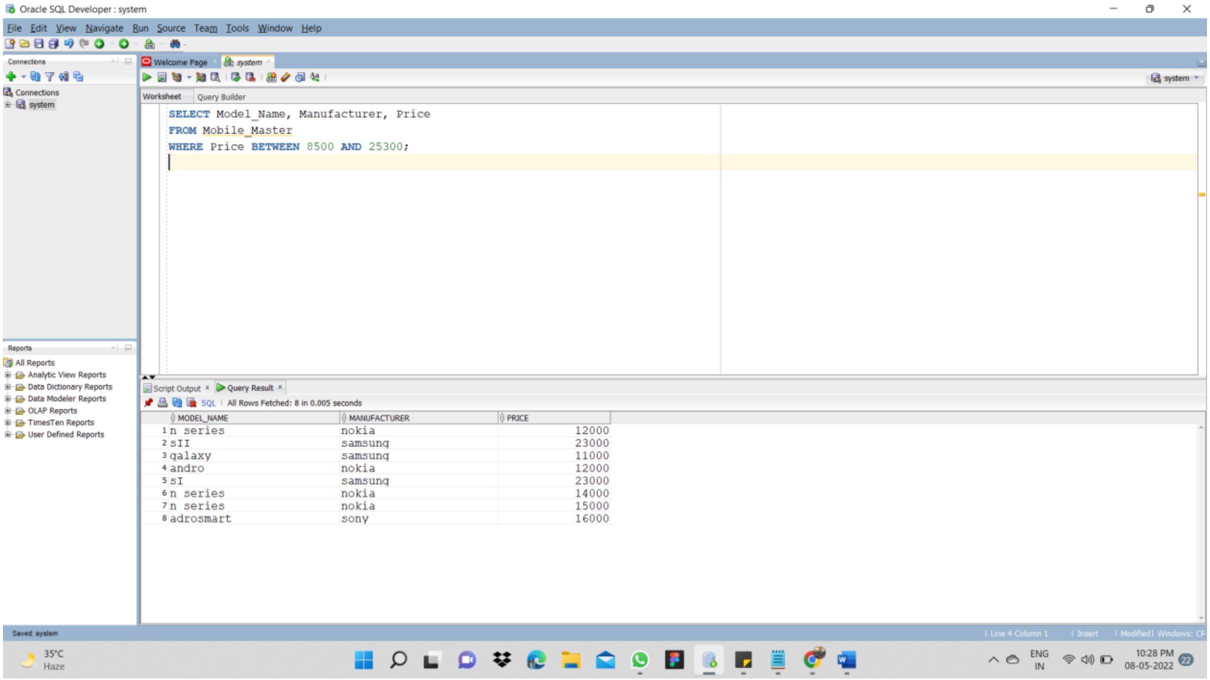
All Rows Fetched: 10 in 0.006 seconds

	IME_NO	MODEL_NAME	MANUFACTURER	PRICE	(PRICE+(PRICE*10/100))
1	ime01	n series	nokia	12000	13200
2	ime02	guru	samsung	4000	4400
3	ime03	sII	samsung	23000	25300
4	ime04	galaxy	samsung	11000	12100
5	ime05	andro	nokia	12000	13200
6	ime06	sI	samsung	23000	25300
7	ime07	n series	nokia	14000	15400
8	ime08	n series	nokia	15000	16500
9	ime09	adrosmart	sony	16000	17600
10	ime10	galaxy	samsung	27000	29700

10. Write a Query to display mobile model name, manufacturer and price for the mobiles having a price range between 8500 and 25300.

Solution:

```
SELECT Model_Name, Manufacturer, Price

FROM Mobile_Master

WHERE Price BETWEEN 8500 AND 25300;
```



```
SELECT Model_Name, Manufacturer, Price
FROM Mobile_Master
WHERE Price BETWEEN 8500 AND 25300;
```

All Rows Fetched: 8 in 0.005 seconds

	MODEL_NAME	MANUFACTURER	PRICE
1	n series	nokia	12000
2	sII	samsung	23000
3	galaxy	samsung	11000
4	andro	nokia	12000
5	sI	samsung	23000
6	n series	nokia	14000
7	n series	nokia	15000
8	adrosmart	sony	16000

11. Write a Query to display the Model Name, Manufacturer, Price, Warranty, Internal memory, memory card capacity, gprs support, Bluetooth, camera quality and OS for the mobile with IME NO "MC1000104"

Solution:

SELECT Model_Name,Manufacturer,Price,Warranty_in_Years,

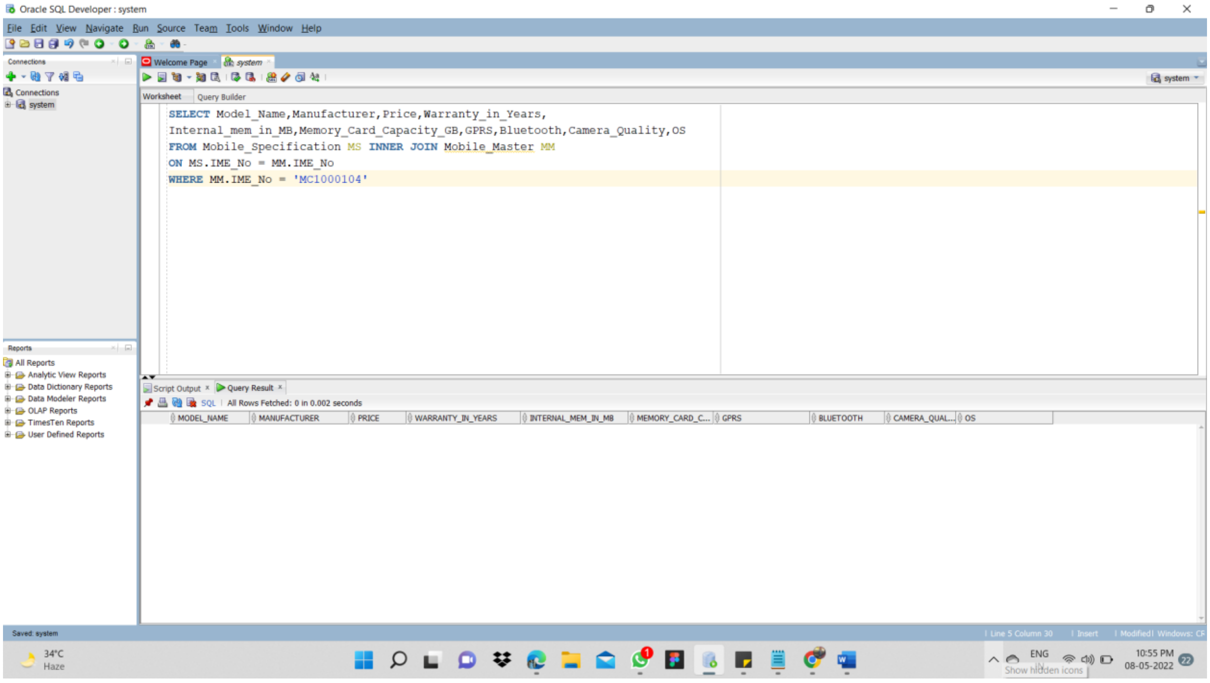
Internal_mem_in_MB,Memory_Card_Capacity_GB,GPRS,Bluetooth,Camera_Quality,OS

FROM Mobile_Specification MS INNER JOIN Mobile_Master MM

ON MS.IME_No = MM.IME_No

WHERE MM.IME_No = 'MC1000104'

QUERY IS EMPTY BECAUSE WE DID NOT HAVE ANY RELATED DATA IN THE TABLE.



```
SELECT Model_Name,Manufacturer,Price,Warranty_in_Years,
Internal_mem_in_MB,Memory_Card_Capacity_GB,GPRS,Bluetooth,Camera_Quality,OS
FROM Mobile_Specification MS INNER JOIN Mobile_Master MM
ON MS.IME_No = MM.IME_No
WHERE MM.IME_No = 'MC1000104'
```

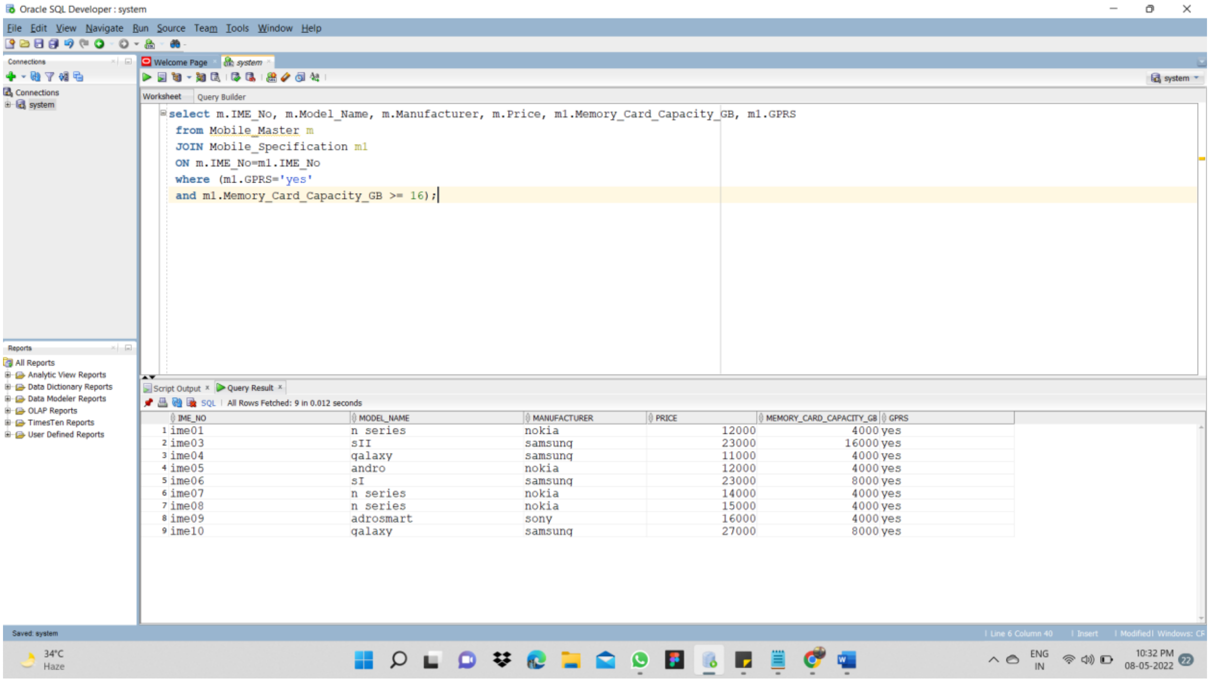
```
All Rows Fetched: 0 in 0.002 seconds
MODEL_NAME  MANUFACTURER  PRICE  WARRANTY_IN_YEARS  INTERNAL_MEM_IN_MB  MEMORY_CARD_C...  GPRS  BLUETOOTH  CAMERA_QUAL...  OS
```

12. "Write a Query to display IME Number, Model Name, Manufacturer, Price ,GPRS information, Memory card capacity of mobiles which has GPRS support with memory card capacity 16GB or above.

Hint: For GPRS support use GPRS = “Yes”."

Solution:

```
select m.IME_No, m.Model_Name, m.Manufacturer, m.Price, m1.Memory_Card_Capacity_GB, m1.GPRS
 from Mobile_Master m
 JOIN Mobile_Specification m1
 ON m.IME_No=m1.IME_No
 where (m1.GPRS='yes'
 and m1.Memory_Card_Capacity_GB >= 16);
```



```
select m.IME_No, m.Model_Name, m.Manufacturer, m.Price, m1.Memory_Card_Capacity_GB, m1.GPRS
 from Mobile_Master m
 JOIN Mobile_Specification m1
 ON m.IME_No=m1.IME_No
 where (m1.GPRS='yes'
 and m1.Memory_Card_Capacity_GB >= 16);
```

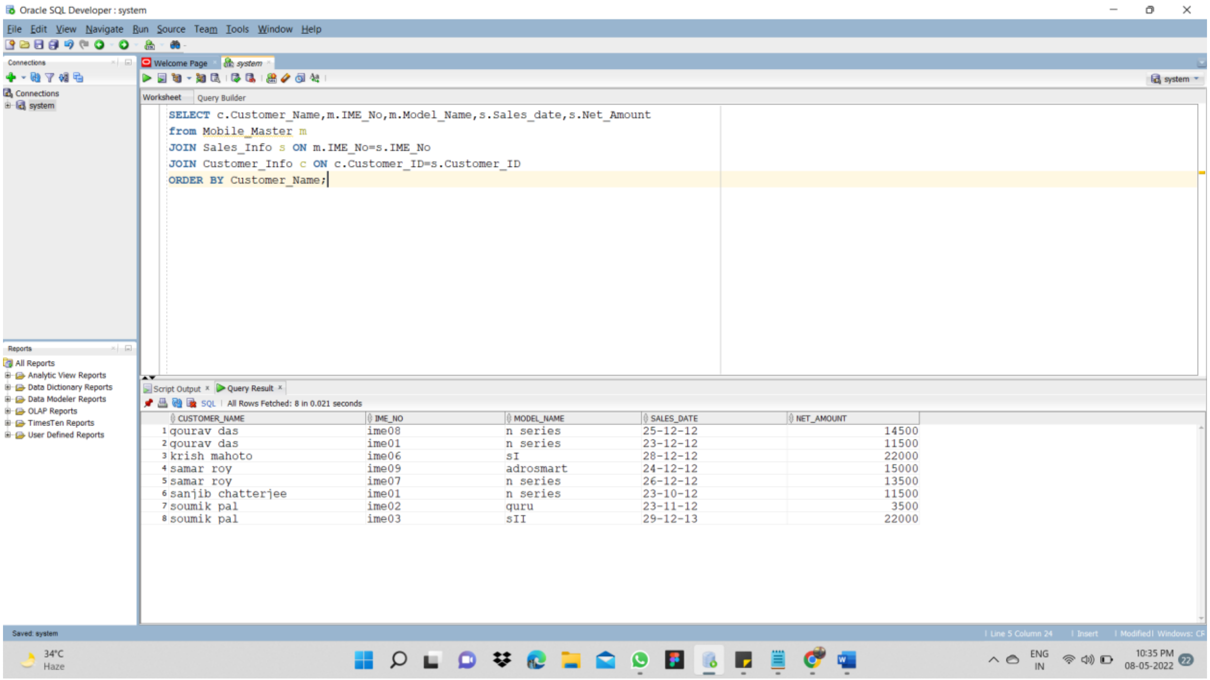
All Rows Fetched: 9 in 0.012 seconds

	IME_NO	MODEL_NAME	MANUFACTURER	PRICE	MEMORY_CARD_CAPACITY_GB	GPRS
1	ime01	n series	nokia	12000	4000	yes
2	ime03	sII	samsung	23000	16000	yes
3	ime04	galaxy	samsung	11000	4000	yes
4	ime05	andro	nokia	12000	4000	yes
5	ime06	sI	samsung	23000	8000	yes
6	ime07	n series	nokia	14000	4000	yes
7	ime08	n series	nokia	15000	4000	yes
8	ime09	adrosmart	sony	16000	4000	yes
9	ime10	galaxy	samsung	27000	8000	yes

13. Write a Query to display the customer name, IME Number, Model Name, Sales Date and Net amount paid by the customer and sort by customer name in ascending order.

Solution:

```
SELECT
c.Customer_Name,m.IME_No,m.Model_Name,s.Sales_date,s.Net_Amount

from Mobile_Master m

JOIN Sales_Info s ON m.IME_No=s.IME_No

JOIN Customer_Info c ON c.Customer_ID=s.Customer_ID

ORDER BY Customer_Name;
```



```
SELECT c.Customer_Name,m.IME_No,m.Model_Name,s.Sales_date,s.Net_Amount
from Mobile_Master m
JOIN Sales_Info s ON m.IME_No=s.IME_No
JOIN Customer_Info c ON c.Customer_ID=s.Customer_ID
ORDER BY Customer_Name;
```

All Rows Fetched: 8 in 0.021 seconds

	CUSTOMER_NAME	IME_NO	MODEL_NAME	SALES_DATE	NET_AMOUNT
1	qourav das	ime08	n series	25-12-12	14500
2	qourav das	ime01	n series	23-12-12	11500
3	krish mahoto	ime06	sI	28-12-12	22000
4	samar roy	ime09	adrosmart	24-12-12	15000
5	samar roy	ime07	n series	26-12-12	13500
6	sanjib chatterjee	ime01	n series	23-10-12	11500
7	soumik pal	ime02	quru	23-11-12	3500
8	soumik pal	ime03	sII	29-12-13	22000

14. "Write a Query to display the IME Number, model name, manufacturer, price and discount of all mobiles regardless of whether the mobile is sold or not. Hint: If not sold, display discount as ""Not Sold""

Solution:

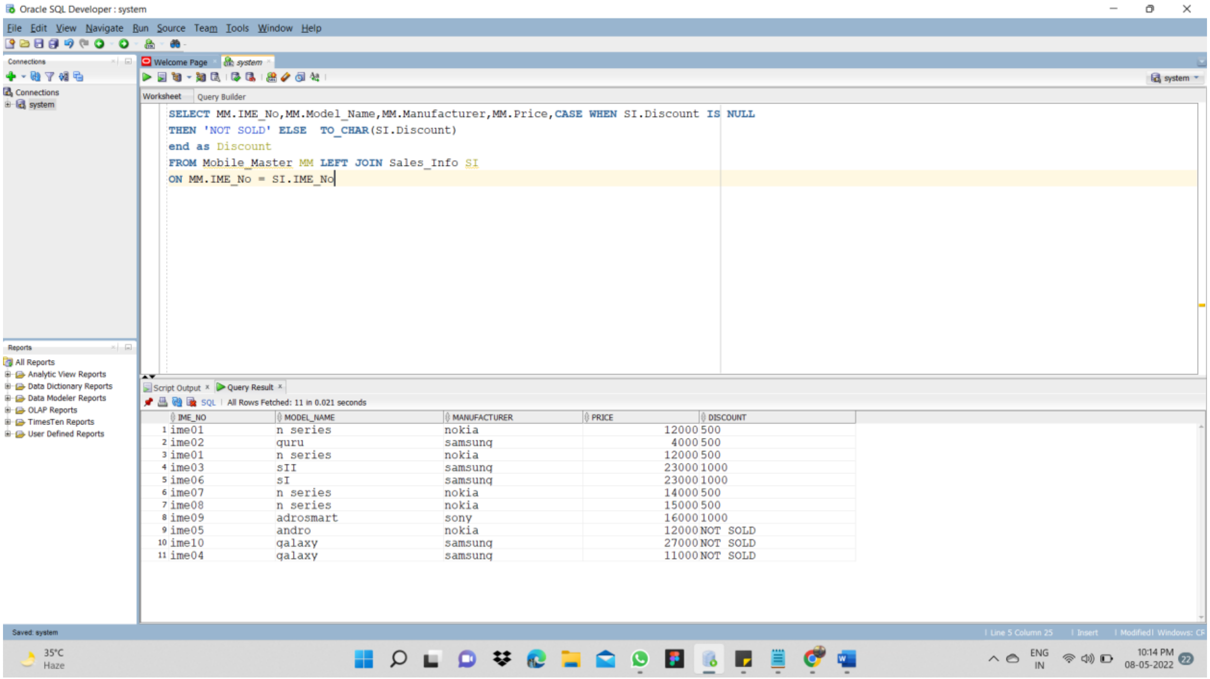
SELECT MM.IME_No,MM.Model_Name,MM.Manufacturer,MM.Price,CASE WHEN SI.Discount IS NULL

THEN 'NOT SOLD' ELSE TO_CHAR(SI.Discount)

end as Discount

FROM Mobile_Master MM LEFT JOIN Sales_Info SI

ON MM.IME_No = SI.IME_No



```
SELECT MM.IME_No,MM.Model_Name,MM.Manufacturer,MM.Price,CASE WHEN SI.Discount IS NULL
THEN 'NOT SOLD' ELSE  TO_CHAR(SI.Discount)
end as Discount
FROM Mobile_Master MM LEFT JOIN Sales_Info SI
ON MM.IME_No = SI.IME_No
```

All Rows Fetched: 11 in 0.021 seconds

	IME_NO	MODEL_NAME	MANUFACTURER	PRICE	DISCOUNT
1	ime01	n series	nokia	12000	500
2	ime02	guru	samsung	4000	500
3	ime01	n series	nokia	12000	500
4	ime03	sII	samsung	23000	1000
5	ime06	sI	samsung	23000	1000
6	ime07	n series	nokia	14000	500
7	ime08	n series	nokia	15000	500
8	ime09	adrosmart	sony	16000	1000
9	ime05	andro	nokia	12000	NOT SOLD
10	ime10	galaxy	samsung	27000	NOT SOLD
11	ime04	galaxy	samsung	11000	NOT SOLD

15. Write a Query to display the sales date and total net amount of all the mobiles based on the sales date that are sold between 20-APR-12 and 25-APR-12. Hint: Total net amount column should be displayed as "TotalNetAmount" (alias)

Solution:

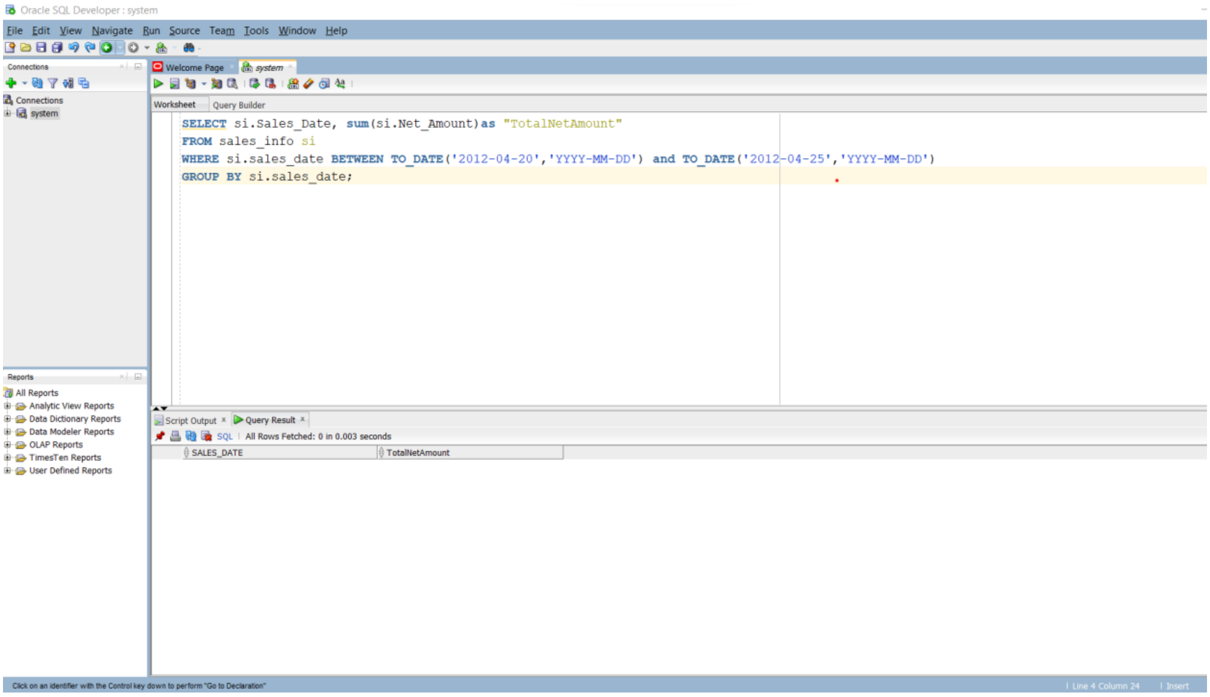
SELECT si.Sales_Date, sum(si.Net_Amount)as "TotalNetAmount"

FROM sales_info si

WHERE si.sales_date BETWEEN TO_DATE('2012-04-20','YYYY-MM-DD') and TO_DATE('2012-04-25','YYYY-MM-DD')

GROUP BY si.sales_date;

QUERY IS EMPTY BECAUSE WE DID NOT HAVE ANY RELATED DATA IN THE TABLE.



```
SELECT si.Sales_Date, sum(si.Net_Amount)as "TotalNetAmount"
FROM sales_info si
WHERE si.sales_date BETWEEN TO_DATE('2012-04-20','YYYY-MM-DD') and TO_DATE('2012-04-25','YYYY-MM-DD')
GROUP BY si.sales_date;
```

All Rows Fetched: 0 in 0.003 seconds

SALES_DATE	TotalNetAmount