

Institute of Computer Technology
B. Tech. Computer Science and Engineering

Semester: III

Sub: Database Management System

Course Code: 2CSE301

Practical Number:6

Objective:

Perform queries using joins, sub query, set operations, group by and having.

Queries:

A. Solve the following queries using sub queries:-

1. Find the product_no and description of non moving products i.e. product not being sold.

Code :

```
select Product_no,Description from product_master where Product_no in  
(select Product_no from sales_order_details where Qty_disp = 0);
```

Output :

	Product_no	Description
▶	P001	Floppies
	P005	Keyboards
	P005	Keyboards

2. Find the customer name, address1, address2, city and pincode for the client who has placed order no 'O1901'.

Code :

```
select Name,City,Pincode from Client_master where Client_no in  
(select Client_no from sales_order where Order_no = 'O1901');
```

Output :

	Name	City	Pincode
▶	Ivan	Bombay	400054

3. Find out if the product 'Mouse' has been ordered by any client and print the client_no, name to whom it was sold.

Code :

```
select Client_no,Name from Client_master where Client_no in
(select Client_no from sales_order where Order_no in
(select Order_no from sales_order_details where Product_no in
(select Product_no from product_master where Description = 'Mouse')));
```

Output :

	Client_no	Name
▶	C001	Ivan
	C003	Pramada
*	NULL	NULL

B. Queries using Having and Group by Clause:-

1. Print the description and total qty sold for each product.

Code :

```
select Description,sum(Qty_disp) as Total_Qty from product_master P,
sales_order_details S where P.Product_no = S.Product_no group by Description;
```

Output :

	Description	Total_Qty
▶	Floppies	6
	Monitor	8
	Mouse	10
	Cd Drive	4
	Keyboards	20

2. Find the value of each product sold.

Code :

```
select Description,sum(Qty_disp*Product_rate) as Total_Value from product_master P,
sales_order_details S where P.Product_no = S.Product_no group by Description;
```

Output :

	Description	Total_Value
►	Floppies	19350.00
	Monitor	35700.00
	Mouse	18900.00
	Cd Drive	4200.00
	Keyboards	10500.00

3. Find out the sum total of all the billed orders for the month of January

Code :

```
select S.Order_no, Order_date, sum(Qty_ordered*Product_rate) as
Total_amount from
sales_order_details SD, sales_order S where
S.Order_no = SD.Order_no and
Billed_yn = 'Y' and month(Order_date) = 1 group by S.Order_no;
```

Output :

	Order_no	Order_date	Total_amount
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C. Queries on Joins and Correlation:-

1. Find out the products, which have been sold to 'Ivan'.

Code :

```
select P.Product_no, Description
from client_master as C,
product_master P, sales_order_details SD, sales_order S
where C.Client_no = S.Client_no
and S.Order_no = SD.Order_no
and SD.Product_no = P.Product_no
and Name = 'Ivan';
```

Output :

	Product_no	Description
▶	P001	Floppies
	P002	Monitor
	P002	Monitor
	P003	Mouse
	P003	Mouse
	P004	Floppies
	P006	Cd Drive
	P006	Cd Drive

2. Find the product_no and description of constantly sold i.e. rapidly moving products.

Code :

```
select distinct P.Product_no, Description
from product_master P, sales_order_details SD,
sales_order as S where P.Product_no = SD.Product_no
and SD.Order_no = S.Order_no
group by P.Product_no, Description;
```

Output :

	Product_no	Description
▶	P001	Floppies
	P002	Monitor
	P003	Mouse
	P004	Floppies
	P006	Cd Drive
	P005	Keyboards

3. Find the names of clients who have purchased 'Cd Drive'.

Code :

```
select distinct S.client_no, C.Name from sales_order_details SD,
sales_order S, product_master P, client_Master C
where P.product_no = SD.product_no
and S.order_no = SD.order_no
and C.client_no = S.client_no
and Description = 'Cd Drive';
```

Output :

	client_no	Name
▶	C001	Ivan

4. List the product number and order number from customers who have ordered less than 4 units of 'Mouse'.

Code :

```
select P.Product_no, S.Order_no from
product_master as P, sales_order as S,
sales_order_details as SD where SD.Qty_ordered < 4
and Description = "Mouse"
and S.Order_no = SD.Order_no
and SD.Product_no = P.Product_no;
```

Output :

	Product_no	Order_no
▶	P003	O1901
	P003	O1901

D. Queries on Constructing Sentences with data:-

1. Print information from product-master, sales_order_detail tables in the following format for all records:-
{description} Worth Rs. {total sales for the product} was sold.

Code :

```
select CONCAT(Description, " Worth Rs. ", Qty_disp * Product_rate, " was
sold") as Description
from product_master P, sales_order_details SD where P.Product_no =
SD.Product_no;
```

Output :

	Description
►	Floppies Worth Rs. 2100.00 was sold
	Monitor Worth Rs. 8400.00 was sold
	Monitor Worth Rs. 8400.00 was sold
	Mouse Worth Rs. 5250.00 was sold
	Mouse Worth Rs. 5250.00 was sold
	Floppies Worth Rs. 0.00 was sold
	Floppies Worth Rs. 12000.00 was sold
	Cd Drive Worth Rs. 2100.00 was sold
	Cd Drive Worth Rs. 2100.00 was sold
	Keyboards Worth Rs. 0.00 was sold
	Keyboards Worth Rs. 0.00 was sold
	Monitor Worth Rs. 9450.00 was sold
	Monitor Worth Rs. 9450.00 was sold
	Mouse Worth Rs. 4200.00 was sold
	Mouse Worth Rs. 4200.00 was sold
	Floppies Worth Rs. 5250.00 was sold
	Keyboards Worth Rs. 5250.00 was sold
	Keyboards Worth Rs. 5250.00 was sold