**Database Systems Lab ­ 14CS2012**

**REGISTER NO : UR14CS228**

**DATE : 19­09­16**

**EXPERIMENT NO : 4**

**Video URL :** [**https://youtu.be/L2WKPtiMFrw**](https://youtu.be/L2WKPtiMFrw)

**AIM:**

To write Basic SQL queries to use Set operations and Joins.

**DESCRIPTION:**

Set operations allow the results of multiple queries to be combined into a single result set.Set operators include UNION, INTERSECT, and EXCEPT.

An SQL JOIN clause is used to combine rows from two or more tables, based on a common field between them.

**INNER JOIN**: Returns all rows when there is at least one match in BOTH tables

**LEFT JOIN**: Return all rows from the left table, and the matched rows from theright table

**RIGHT JOIN**: Return all rows from the right table, and the matched rows from theleft table

**FULL JOIN**: Return all rows when there is a match in ONE of the tables

**SYNTAX:**

Excercise 4

**1. Display the product that was ordered and delivered (Union)**

SELECT product\_id, product\_description FROM Product UNION SELECT p\_id FROM Supplier;

PRODUCT\_ID

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1000

1001

2000

3000

3001

4001

9999

**2. Display the details of the product that are yet to be delivered. (Minus)**

SELECT product\_id, product\_description FROM Product MINUS SELECT p\_id FROM Supplier

PRODUCT\_ID

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3000

3001

**3. List the name of the customers who has placed an order on or after 10 th OCT 2014.**

SELECT Orders.customer\_id,customer.customer\_name,Orders.order\_id FROM ORders INNER JOIN customer ON Orders.customer\_id=customer.customer\_id WHERE order\_date > to\_date('10­10­2014','DD­MM­YYYY');

CUSTOMER\_ID CUSTOMER\_NAME ORDER\_ID

1 John Doe 108

**4. Display the details of the product that are delivered within 10 days.**

SELECT Supplier.p\_id,Orders.order\_date,Supplier.s\_date FROM Supplier LEFT OUTER JOIN Orderquantity ON Supplier.p\_id=Orderq fuantity.product\_id LEFT OUTER JOIN Orders ON Orders.order\_id=Orderquantity.order\_id WHERE (TO\_DATE(Supplier.s\_date)­TO\_DATE(Orders.order\_date)) <= 10;

NO ROWS SELECTED

**5. Display details of the customer who has received their ordered product.**

SELECT \* FROM Customer WHERE customer\_id IN (SELECT customer\_id FROM Orders WHERE d\_time IS NOT NULL)

CUSTOMER\_ID CUSTOMER\_NAME

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2 Mary Smith

2 Mary Smith

**6. Display the details of the product whose quantity is greater than 10**

SELECT \* FROM Product, Orderquantity WHERE Product.product\_id IN (SELECT product\_id FROM Orderquantity WHERE ordered\_quantity > 10)

PRODUCT\_ID

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1000

3000

4001

3001

3000

**7. Display the details of order\_id with Order\_date and customer\_name. (inner join)**

SELECT order\_id,order\_date,customer\_name FROM Orders INNER JOIN Customer ON Orders.customer\_id=Customer.customer\_id

ORDER\_ID ORDER\_DAT CUSTOMER\_NAME

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1. 01-OCT-14 John Doe
2. 01-OCT-14 Mary Smith
3. 02-OCT-14 Richard Newman
4. 03-OCT-14 Mary Smith
5. 10-OCT-14 Cathy Cook
6. 10-OCT-14 Mary Smith
7. 10-OCT-14 John Doe

108 10­NOV­14 John Doe

**8. Display the details of all the products that have been ordered and also the details of delivered product. (use left outer join)**

SELECT \* FROM Product LEFT OUTER JOIN Orders ON Orders.p\_id=Product.p\_id

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| RODUCT\_ID PRODUCT\_DESCRIPTION | | PRODUCT\_MA | PRODUCT\_LINE\_ID |  |
| --------------------------------------------------1000 | Office Desk---------- | --------------- | 10 |  |
|  |  | Cherry |  |  |
| 4001 | Duplex Table Lamp | White Ash | 40 |  |

**9. Display the details of all customers as well as the order details. (full outer join)**

SELECT \* FROM Customer FULL OUTER JOIN Orders ON Customer.customer\_id = Orders.customer\_id

CUSTOMER\_ID CUSTOMER\_NAME CUSTOMER\_ADDRESS CITY

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STATE PSTAL\_ ORDER\_ID ORDER\_DAT CUSTOMER\_ID

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3 Richard Newman 2040 Riverside Rd. San Diego

CA 92010 102 02-OCT-14 3

**10. Display the details of the Supplier who has supplied ‘Office Desk’**

SELECT Supplier.\* FROM Supplier LEFT OUTER JOIN Product ON Supplier.p\_id=Product.product\_id WHERE Product.product\_description='Office Desk';

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S\_ID S\_NAME |  | GENDER | S\_DATE | P\_ID |
| ---------- ------------------------- -------- --------- ---------- | | | |  |
| 1 aaa | M | 11­NOV­14 | 1000 |  |

**Result:**

SQL queries using DDL and DCL commands are successfully executed.