

# Database Systems Lab - 14CS2012

REGISTER NO : UR14CS228

DATE : 19-09-16

EXPERIMENT NO : 4

Video URL : <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 the right table

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

-----

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

-----

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('10-10-2014','DD-MM-YYYY');

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

-----

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

-----

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

-----

100 01-OCT-14 John Doe

101 01-OCT-14 Mary Smith

102 02-OCT-14 Richard Newman

103 03-OCT-14 Mary Smith

105 10-OCT-14 Cathy Cook

106 10-OCT-14 Mary Smith

107 10-OCT-14 John Doe

108 10-NOV-14 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	Cherry	10
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
-------------	---------------	------------------	------

-----

STATE	PSTAL_	ORDER_ID	ORDER_DAT	CUSTOMER_ID
-------	--------	----------	-----------	-------------

-----

	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	11-NOV-14	1000
---	-----	---	-----------	------

**Result:**

SQL queries using DDL and DCL commands are successfully executed.