**EX.NO:7 JOIN QUERIES**

**AIM**

To study the various SQL Join queries operations on the database.

**PROCEDURE:**

A JOIN clause is used to combine rows from two or more tables, based on a related column between them.

**Different Types of SQL JOINs**

Here are the different types of the JOINs in SQL:

1. **(INNER) JOIN: Returns records that have matching values in both tables**

***Syntax:***

SELECT column\_name(s)  
FROM table1  
INNER JOIN table2ON table1.column\_name = table2.column\_name;

1. **LEFT JOIN: Returns all records from the left table, and the matched records from the right table**

***Syntax:***

SELECT column\_name(s)  
FROM table1  
LEFT JOIN table2ON table1.column\_name = table2.column\_name;

1. **RIGHT (OUTER) JOIN: Returns all records from the right table, and the matched records from the left table**

***Syntax:***

SELECT column\_name(s)  
FROM table1  
RIGHT JOIN table2ON table1.column\_name = table2.column\_name;

1. **FULL (OUTER) JOIN: Returns all records when there is a match in either left or right table**

***Syntax:***

SELECT column\_name(s)  
FROM table1  
FULL OUTER JOIN table2ON table1.column\_name = table2.column\_nameWHERE condition;

**EXAMPLE:**

**CREATE A TABLE PRODUCTORDERS**

*SQL> CREATE table productorders(Order\_Id number(5),Orderno number(5),P\_Id number(3));*

Table created.

*SQL> desc productorders;*

Name Null? Type

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ORDER\_ID NUMBER(5)

ORDERNO NUMBER(5)

P\_ID NUMBER(3)

**INSERTING VALUES INTO THE TABLE PRODUCTORDERS**

*SQL> INSERT into productorders values(&Order\_Id,&Orderno,&P\_Id);*

Enter value for order\_id: 1

Enter value for orderno: 77895

Enter value for p\_id: 3

old 1: INSERT into productorders values(&Order\_Id,&Orderno,&P\_Id)

new 1: INSERT into productorders values(1,77895,3)

*1 row created.*

*SQL> INSERT into productorders values(&Order\_Id,&Orderno,&P\_Id);*

Enter value for order\_id: 2

Enter value for orderno: 44678

Enter value for p\_id: 3

old 1: INSERT into productorders values(&Order\_Id,&Orderno,&P\_Id)

new 1: INSERT into productorders values(2,44678,3)

1 row created.

*SQL> INSERT into productorders values(&Order\_Id,&Orderno,&P\_Id);*

Enter value for order\_id: 3

Enter value for orderno: 22456

Enter value for p\_id: 1

old 1: INSERT into productorders values(&Order\_Id,&Orderno,&P\_Id)

new 1: INSERT into productorders values(3,22456,1)

*1 row created.*

*SQL> INSERT into productorders values(&Order\_Id,&Orderno,&P\_Id);*

Enter value for order\_id: 4

Enter value for orderno: 24562

Enter value for p\_id: 1

old 1: INSERT into productorders values(&Order\_Id,&Orderno,&P\_Id)

new 1: INSERT into productorders values(4,24562,1)

*1 row created.*

*SQL> INSERT into productorders values(&Order\_Id,&Orderno,&P\_Id);*

Enter value for order\_id: 5

Enter value for orderno: 34764

Enter value for p\_id: 15

old 1: INSERT into productorders values(&Order\_Id,&Orderno,&P\_Id)

new 1: INSERT into productorders values(5,34764,15)

*1 row created.*

**DISPLAYING DATA FROM TABLE PRODUCTORDERS**

SQL> select \* from productorders;

ORDER\_ID ORDERNO P\_ID

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1 77895 3

2 44678 3

3 22456 1

4 24562 1

5 34764 15

**CREATE A SECOND TABLE PERSON**

*SQL> CREATE table person(p\_Id number(5),LASTNAME varchar2(10),Firstname varchar2(15), Address varchar2(20),city varchar2(10));*

Table created.

**INSERTING VALUES INTO THE TABLE PERSON**

*SQL> INSERT into person values(&p\_Id,'&Lastname','&firstname','&Address','&city');*

Enter value for p\_id: 1

Enter value for lastname: Smith

Enter value for firstname: Jadon

Enter value for address: Ramapuram

Enter value for city: Chennai

old 1: INSERT into person values(&p\_Id,'&Lastname','&firstname','&Address','&city')

new 1: INSERT into person values(1,'Smith','Jadon','Ramapuram','Chennai')

*1 row created.*

*SQL> INSERT into person values(&p\_Id,'&Lastname','&firstname','&Address','&city');*

Enter value for p\_id: 2

Enter value for lastname: Hemal

Enter value for firstname: Elango

Enter value for address: Anna Nagar

Enter value for city: Tamilnadu

old 1: INSERT into person values(&p\_Id,'&Lastname','&firstname','&Address','&city')

new 1: INSERT into person values(2,'Hemal','Elango','Anna Nagar','Tamilnadu')

*1 row created.*

*SQL> INSERT into person values(&p\_Id,'&Lastname','&firstname','&Address','&city');*

Enter value for p\_id: 3

Enter value for lastname: Lanser

Enter value for firstname: Kim

Enter value for address: Hyderabad

Enter value for city: AP

old 1: INSERT into person values(&p\_Id,'&Lastname','&firstname','&Address','&city')

new 1: INSERT into person values(3,'Lanser','Kim','Hyderabad','AP')

*1 row created.*

**DISPLAYING DATA FROM TABLE PERSON**

*SQL> select \* from person;*

P\_ID LASTNAME FIRSTNAME ADDRESS CITY

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1 Smith Jadon Ramapuram Chennai

2 Hemal Elango Anna Nagar Tamilnadu

3 Lanser Kim Hyderabad AP

**#1 INNER JOIN**

**OUTPUT**

*SQL> SELECT person.firstname,person.city FROM person INNER JOIN productorders ON person.p\_Id = productorders.p\_Id;*

FIRSTNAME CITY

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Kim AP

Kim AP

Jadon Chennai

Jadon Chennai

**#2 LEFT JOIN**

**OUTPUT**

*SQL> SELECT person.lastname,person.firstname,productorders.orderno FROM person LEFT JOIN productorders ON person.p\_Id = productorders.p\_Id ORDER BY person.lastname;*

LASTNAME FIRSTNAME ORDERNO

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Hemal Elango

Lanser Kim 77895

Lanser Kim 44678

Smith Jadon 24562

Smith Jadon 22456

**#3 RIGHT (OUTER) JOIN**

**OUTPUT**

*SQL> SELECT person.lastname,person.firstname,productorders.orderno FROM person RIGHT OUTER JOIN productorders ON person.p\_Id = productorders.p\_Id ORDER BY person.firstname;*

LASTNAME FIRSTNAME ORDERNO

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Smith Jadon 22456

Smith Jadon 24562

Lanser Kim 77895

Lanser Kim 44678

34764

**#4 FULL OUTER JOIN**

**OUTPUT**

*SQL> SELECT person.lastname,person.address FROM person FULL OUTER JOIN productorders ON person.p\_Id = productorders.p\_Id ORDER BY person.firstname;*

LASTNAME ADDRESS

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Hemal Anna Nagar

Smith Ramapuram

Smith Ramapuram

Lanser Hyderabad

Lanser Hyderabad

*6 rows selected.*

# RESULT:

Thus the various SQL Join queries operations on the database have been executed successfully.