VIT-AP UNIVERSITY

*School Of Computer Science and Engineering*

**Assignment 6**

**(Winter Sem 2021-2022)**

**Course Code:** CSE2007 **Course Title:** Database Management Systems

Faculty Name: Manomita Chakraborty (70296)

Aim: To understand join operations in SQL

**Employee**

| | EmployeeID | FirstName | LastName | Salary | JoiningDate | Department | Gender |
|---|---|---|---|---|---|---|---|
| 1 | 1 | Vikas | Ahlawat | 600000.00 | 2013-02-15 11:16:28.290 | IT | Male |
| 2 | 2 | nikita | Jain | 530000.00 | 2014-01-09 17:31:07.793 | HR | Female |
| 3 | 3 | Ashish | Kumar | 1000000.00 | 2014-01-09 10:05:07.793 | IT | Male |
| 4 | 4 | Nikhil | Sharma | 480000.00 | 2014-01-09 09:00:07.793 | HR | Male |
| 5 | 5 | anish | kadian | 500000.00 | 2014-01-09 09:31:07.793 | Payroll | Male |

CREATE TABLE EMPLOYEE_20BCE7236(EMPID NUMERIC(1), FIRST_NAME VARCHAR(6),LAST_NAME VARCHAR(10), SALARY NUMERIC(10), JOIN_DATE VARCHAR(30), DEPARTMENT VARCHAR(10), GENDER CHAR(6));

INSERT INTO EMPLOYEE_20BCE7236 VALUES(1, 'Vikas', 'Ahlawat', '600000', '2013-02-15 11:16:28.290', 'IT', 'Male');

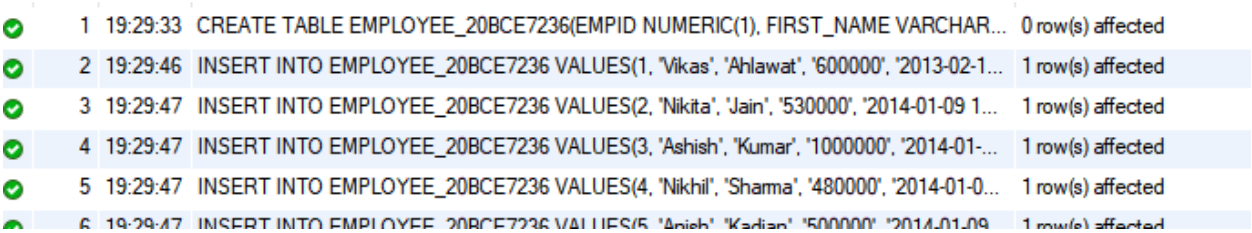
INSERT INTO EMPLOYEE_20BCE7236 VALUES(2, 'Nikita', 'Jain', '530000', '2014-01-09 17:31:07.793', 'HR', 'Female');

INSERT INTO EMPLOYEE_20BCE7236 VALUES(3, 'Ashish', 'Kumar', '1000000', '2014-01-09 10:05:07.793', 'IT', 'Male');

INSERT INTO EMPLOYEE_20BCE7236 VALUES(4, 'Nikhil', 'Sharma', '480000', '2014-01-09 09:00:07.793', 'HR', 'Male');

INSERT INTO EMPLOYEE_20BCE7236 VALUES(5, 'Anish', 'Kadian', '500000', '2014-01-09 09:31:07.793', 'PAYROLL', 'Male');

**OUTPUT:**



| | | | | |
|---|---|---|---|---|
| ✓ | 1 | 19:29:33 | CREATE TABLE EMPLOYEE_20BCE7236(EMPID NUMERIC(1), FIRST_NAME VARCHAR... | 0 row(s) affected |
| ✓ | 2 | 19:29:46 | INSERT INTO EMPLOYEE_20BCE7236 VALUES(1, 'Vikas', 'Ahlawat', '600000', '2013-02-1... | 1 row(s) affected |
| ✓ | 3 | 19:29:47 | INSERT INTO EMPLOYEE_20BCE7236 VALUES(2, 'Nikita', 'Jain', '530000', '2014-01-09 1... | 1 row(s) affected |
| ✓ | 4 | 19:29:47 | INSERT INTO EMPLOYEE_20BCE7236 VALUES(3, 'Ashish', 'Kumar', '1000000', '2014-01-... | 1 row(s) affected |
| ✓ | 5 | 19:29:47 | INSERT INTO EMPLOYEE_20BCE7236 VALUES(4, 'Nikhil', 'Sharma', '480000', '2014-01-0... | 1 row(s) affected |
| ✓ | 6 | 19:29:47 | INSERT INTO EMPLOYEE_20BCE7236 VALUES(5, 'Anish', 'Kadian', '500000', '2014-01-09... | 1 row(s) affected |

**Project**

| | ProjectDetailID | EmployeeDetailID | ProjectName |
|---|---|---|---|
| 1 | 1 | 1 | Task Track |
| 2 | 2 | 1 | CLP |
| 3 | 3 | 1 | Survey Managment |
| 4 | 4 | 2 | HR Managment |
| 5 | 5 | 3 | Task Track |
| 6 | 6 | 3 | GRS |
| 7 | 7 | 3 | DDS |
| 8 | 8 | 4 | HR Managment |
| 9 | 9 | 6 | GL Managment |

**CREATE TABLE PROJECT_20BCE7236(PROJECTDETAIL_ID NUMERIC(1), EMPDETAIL_ID NUMERIC(1), PROJECT_NAME VARCHAR(20));**

**INSERT INTO PROJECT_20BCE7236 VALUES(1,1,'TASK TRACK');**

**INSERT INTO PROJECT_20BCE7236 VALUES(2,1,'CLP');**

**INSERT INTO PROJECT_20BCE7236 VALUES(3,1,'SURVEY MANAGEMENT');**

**INSERT INTO PROJECT_20BCE7236 VALUES(4,2,'HP MANAGEMENT');**

**INSERT INTO PROJECT_20BCE7236 VALUES(5,3,'TASK TRACK');**

**INSERT INTO PROJECT_20BCE7236 VALUES(6,3,'GRS');**

**INSERT INTO PROJECT_20BCE7236 VALUES(7,3,'DDS');**

**INSERT INTO PROJECT_20BCE7236 VALUES(8,4,'HR MANAGEMENT');**

**INSERT INTO PROJECT_20BCE7236 VALUES(9,6,'GL MANAGEMENT');**

| | | | | |
|---|---|---|---|---|
| ✔ | 12 | 19:31:29 | INSERT INTO PROJECT_20BCE7236 VALUES(5,3,'TASK TRACK') | 1 row(s) affected |
| ✔ | 13 | 19:31:29 | INSERT INTO PROJECT_20BCE7236 VALUES(6,3,'GRS') | 1 row(s) affected |
| ✔ | 14 | 19:31:30 | INSERT INTO PROJECT_20BCE7236 VALUES(7,3,'DDS') | 1 row(s) affected |
| ✔ | 15 | 19:31:30 | INSERT INTO PROJECT_20BCE7236 VALUES(8,4,'HR MANAGEMENT') | 1 row(s) affected |
| ✔ | 16 | 19:31:30 | INSERT INTO PROJECT_20BCE7236 VALUES(9,6,'GL MANAGEMENT') | 1 row(s) affected |

## *Questions*

1. **Find employee name, project name order by FirstName from "Employee" and "Project" for those employees who are assigned projects.**

   ***SELECT FIRST_NAME, LAST_NAME FROM EMPLOYEE_20BCE7236 A INNER JOIN PROJECT_20BCE7236 B ON A.EMPID=B.EMPDETAIL_ID ORDER BY FIRST_NAME;***

```
20 •  SELECT FIRST_NAME, LAST_NAME FROM EMPLOYEE_20BCE7236 A INNER JOIN PROJECT_20BCE7236 B ON A.E
21 •  SELECT FIRST_NAME, LAST_NAME FROM EMPLOYEE_20BCE7236 A LEFT OUTER JOIN PROJECT_20BCE7236 B C
22 •  SELECT FIRST_NAME, LAST_NAME,'-NO PROJECT ASSIGNED' FROM EMPLOYEE_20BCE7236 A LEFT OUTER JOI
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| FIRST_NAME | LAST_NAME |
|---|---|
| Ashish | Kumar |
| Ashish | Kumar |
| Ashish | Kumar |
| Nikhil | Sharma |
| Nikita | Jain |
| Vikas | Ahlawat |
| Vikas | Ahlawat |
| Vikas | Ahlawat |

2. **Find employee name, project name order by FirstName from "Employee" and "Project" for all employees, even if no project has been assigned to them.**

   ***SELECT FIRST_NAME, LAST_NAME FROM EMPLOYEE_20BCE7236 A LEFT OUTER JOIN PROJECT_20BCE7236 B ON A.EMPID=B.EMPDETAIL_ID ORDER BY FIRST_NAME;***

```
21 •  SELECT FIRST_NAME, LAST_NAME FROM EMPLOYEE_20BCE7236 A LEFT
22 •  SELECT FIRST_NAME, LAST_NAME,'-NO PROJECT ASSIGNED' FROM EMP
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| FIRST_NAME | LAST_NAME |
|---|---|
| Anish | Kadian |
| Ashish | Kumar |
| Ashish | Kumar |
| Ashish | Kumar |
| Nikhil | Sharma |
| Nikita | Jain |
| Vikas | Ahlawat |
| Vikas | Ahlawat |
| Vikas | Ahlawat |

3. **Find employee name, project name order by FirstName from "Employee" and "Project" for all employees. If no project has been assigned, the message "-No Project Assigned" will be displayed**

***SELECT FIRST_NAME, LAST_NAME,'-NO PROJECT ASSIGNED' FROM EMPLOYEE_20BCE7236 A LEFT OUTER JOIN PROJECT_20BCE7236 B ON A.EMPID=B.EMPDETAIL_ID ORDER BY FIRST_NAME;***

```
22 •  SELECT FIRST_NAME, LAST_NAME,'-NO PROJECT ASSIGNED' FROM EMPLOYEE_20BCE72
23 •  SELECT FIRST_NAME, LAST_NAME FROM EMPLOYEE_20BCE7236 A RIGHT OUTER JOIN P
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| FIRST_NAME | LAST_NAME | -NO PROJECT ASSIGNED |
|---|---|---|
| Anish | Kadian | -NO PROJECT ASSIGNED |
| Ashish | Kumar | -NO PROJECT ASSIGNED |
| Ashish | Kumar | -NO PROJECT ASSIGNED |
| Ashish | Kumar | -NO PROJECT ASSIGNED |
| Nikhil | Sharma | -NO PROJECT ASSIGNED |
| Nikita | Jain | -NO PROJECT ASSIGNED |
| Vikas | Ahlawat | -NO PROJECT ASSIGNED |
| Vikas | Ahlawat | -NO PROJECT ASSIGNED |
| Vikas | Ahlawat | -NO PROJECT ASSIGNED |

4. **Find all project names from the table project, even if there is no matching EmployeeID in the employee table, ordered by FirstName.**

***SELECT FIRST_NAME, LAST_NAME FROM EMPLOYEE_20BCE7236 A RIGHT OUTER JOIN PROJECT_20BCE7236 B ON A.EMPID=B.EMPDETAIL_ID ORDER BY FIRST_NAME;***

```
23 • SELECT FIRST_NAME, LAST_NAME FROM EMPLOYEE_20BCE7236 A RIGHT OUTER JOIN PROJECT_20BCE7236 B ON A.EMPID=B.E
24 • SELECT FIRST_NAME, PROJECT_NAME FROM EMPLOYEE_20BCE7236 A JOIN PROJECT_20BCE7236 B ON A.EMPID=B.EMPDETAIL_
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| FIRST_NAME | LAST_NAME |
|---|---|
| NULL | NULL |
| Ashish | Kumar |
| Ashish | Kumar |
| Ashish | Kumar |
| Nikhil | Sharma |
| Nikita | Jain |
| Vikas | Ahlawat |
| Vikas | Ahlawat |
| Vikas | Ahlawat |

5. **Retrieve the entire record (employee name, project name) from both tables ([Employee], [Project]). If no match is found in any table, display NULL**

***SELECT FIRST_NAME, PROJECT_NAME FROM EMPLOYEE_20BCE7236 A JOIN PROJECT_20BCE7236 B ON A.EMPID=B.EMPDETAIL_ID ORDER BY FIRST_NAME;***

```
24 • SELECT FIRST_NAME, PROJECT_NAME FROM EMPLOYEE_20BCE7236 A JOIN PROJECT_20BCE7236 B ON A.EMPID=B.EMPDETAIL_
25 • SELECT FIRST_NAME, PROJECT_NAME,'-NO PROJECT ASSIGNED' AS PROJECT_NAME FROM EMPLOYEE_20BCE7236 A LEFT OUT
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| FIRST_NAME | PROJECT_NAME |
|---|---|
| Ashish | TASK TRACK |
| Ashish | GRS |
| Ashish | DDS |
| Nikhil | HR MANAGEMENT |
| Nikita | HP MANAGEMENT |
| Vikas | TASK TRACK |
| Vikas | CLP |
| Vikas | SURVEY MANAGEMENT |

6. **Write a query that returns the names of employees who have no projects assigned to them and displays "-No Project Assigned."**

***SELECT FIRST_NAME, PROJECT_NAME,'-NO PROJECT ASSIGNED' AS PROJECT_NAME FROM EMPLOYEE_20BCE7236 A LEFT OUTER JOIN PROJECT_20BCE7236 B ON A.EMPID=B.EMPDETAIL_ID ORDER BY FIRST_NAME;***

```
25 •  SELECT FIRST_NAME, PROJECT_NAME,'-NO PROJECT ASSIGNED' AS PROJECT_NAME FROM EMPL
26 •  SELECT PROJECT_NAME FROM EMPLOYEE_20BCE7236 A RIGHT OUTER JOIN PROJECT_20BCE7236
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| FIRST_NAME | PROJECT_NAME | PROJECT_NAME |
|---|---|---|
| Anish | NULL | -NO PROJECT ASSIGNED |
| Ashish | DDS | -NO PROJECT ASSIGNED |
| Ashish | GRS | -NO PROJECT ASSIGNED |
| Ashish | TASK TRACK | -NO PROJECT ASSIGNED |
| Nikhil | HR MANAGEMENT | -NO PROJECT ASSIGNED |
| Nikita | HP MANAGEMENT | -NO PROJECT ASSIGNED |
| Vikas | SURVEY MANAGEMENT | -NO PROJECT ASSIGNED |
| Vikas | CLP | -NO PROJECT ASSIGNED |
| Vikas | TASK TRACK | -NO PROJECT ASSIGNED |

7. **Write a query to find project names that have not been assigned to any employee.**

***SELECT PROJECT_NAME FROM EMPLOYEE_20BCE7236 A RIGHT OUTER JOIN PROJECT_20BCE7236 B ON A.EMPID=B.EMPDETAIL_ID ORDER BY FIRST_NAME;***

```
26 •  SELECT PROJECT_NAME FROM EMPLOYEE_20BCE7236 A RIGHT OUTER JOIN PROJECT_20BCE7236 B ON A.EMPID=B.EMPDETA
27 •  SELECT EMPID,FIRST_NAME, PROJECT_NAME FROM EMPLOYEE_20BCE7236 E INNER JOIN PROJECT_20BCE7236 P
28      ON E.EMPID = P.EMPDETAIL_ID
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| PROJECT_NAME |
|---|
| GL MANAGEMENT |
| TASK TRACK |
| GRS |
| DDS |
| HR MANAGEMENT |
| HP MANAGEMENT |
| TASK TRACK |
| CLP |
| SURVEY MANAGEMENT |

8. **Write a query to retrieve the Employee Names who are assigned to more than one project.**

***SELECT EMPID,FIRST_NAME, PROJECT_NAME FROM EMPLOYEE_20BCE7236 E INNER JOIN PROJECT_20BCE7236 P ON E.EMPID = P.EMPDETAIL_ID***
***WHERE EMPID IN(SELECT EMPDETAIL_ID FROM PROJECT_20BCE7236 GROUP BY EMPDETAIL_ID HAVING COUNT(*) > 1);***

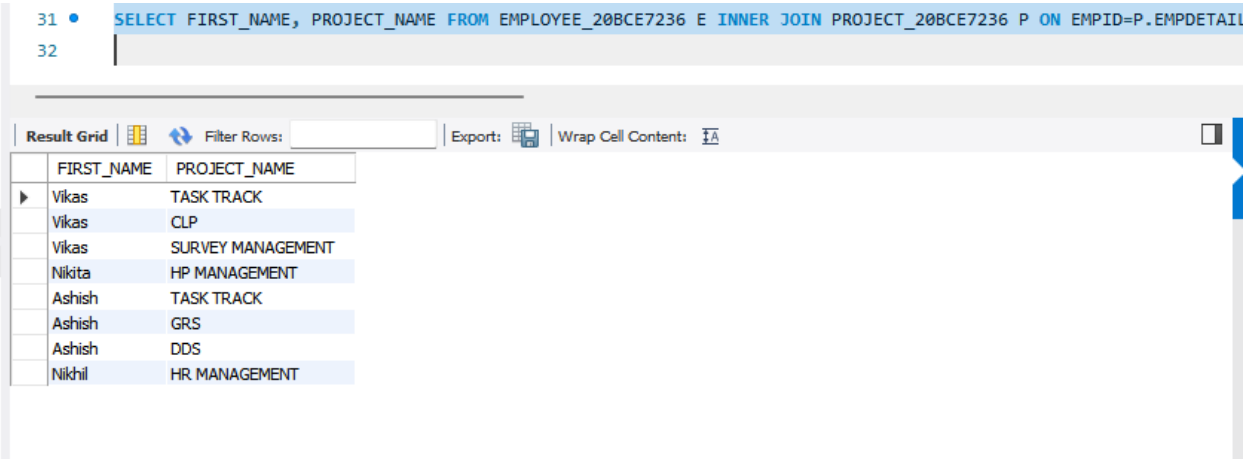
```
27 •  SELECT EMPID,FIRST_NAME, PROJECT_NAME FROM EMPLOYEE_20BCE7236 E INNER JOIN PROJECT_20BCE7236 P
28    ON E.EMPID = P.EMPDETAIL_ID
29    WHERE EMPID IN(SELECT EMPDETAIL_ID FROM PROJECT_20BCE7236 GROUP BY EMPDETAIL_ID HAVING
30    COUNT(*) > 1);
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| EMPID | FIRST_NAME | PROJECT_NAME |
|---|---|---|
| 1 | Vikas | TASK TRACK |
| 1 | Vikas | CLP |
| 1 | Vikas | SURVEY MANAGEMENT |
| 3 | Ashish | TASK TRACK |
| 3 | Ashish | GRS |
| 3 | Ashish | DDS |

9. **Write a query to retrieve the Project Names on which multiple employees are working, as well as their Employee Names.**

***SELECT FIRST_NAME, PROJECT_NAME FROM EMPLOYEE_20BCE7236 E INNER JOIN PROJECT_20BCE7236 P ON EMPID=P.EMPDETAIL_ID;***




| FIRST_NAME | PROJECT_NAME |
|---|---|
| Vikas | TASK TRACK |
| Vikas | CLP |
| Vikas | SURVEY MANAGEMENT |
| Nikita | HP MANAGEMENT |
| Ashish | TASK TRACK |
| Ashish | GRS |
| Ashish | DDS |
| Nikhil | HR MANAGEMENT |

***NAME: S.B.ASHRITH***

***REG NO: 20BCE7236***