

## POST LAB TASKS LAB 5

23K-0071

UROOJ BALOCH

### TASK 11:

```
--TASK 11
SELECT s.StudentName, t.TeacherName, s.City
FROM Students s
JOIN Teachers t ON s.City = t.City;
```

Script Output x | Query Result x | Query Result 1 x | Query Result 2 x |

SQL | All Rows Fetched: 3 in 0 seconds

	STUDENTNAME	TEACHERNAME	CITY
1	Ayesha	Sir Ali	Lahore
2	Bilal	Miss Sana	Karachi
3	Fatima	Sir Ali	Lahore

### TASK 12:

SQL | All Rows Fetched: 5 in 0 seconds

	EMPNAME	MANAGER
1	Ahmed	Ali
2	Sara	Ali
3	Zara	Ahmed
4	Omar	No Manager
5	Ali	No Manager

### TASK 13:

```
--TASK 13
SELECT EmpName
FROM Employees
WHERE DeptID IS NULL;
```

Script Output x | Query Result x | Query Result 1 x

SQL | All Rows Fetched: 1 in 0 seconds

	EMPNAME
1	Omar

### TASK 14:

```
--TASK 14
SELECT d.DeptName, AVG(e.Salary) AS AvgSalary FROM Departments d
JOIN Employees e ON d.DeptID = e.DeptID
GROUP BY d.DeptName
HAVING AVG(e.Salary) > 50000;
```

```
--TASK 15
```

Script Output x | Query Result x | Query Result 1 x | Query Result 2 x | Query Result

SQL | All Rows Fetched: 2 in 0.016 seconds

	DEPTNAME	AVGSALARY
1	IT	70000
2	HR	52500

#### TASK 15:

```
--TASK 15
SELECT e.EmpName, e.Salary, d.DeptName FROM Employees e
JOIN Departments d ON e.DeptID = d.DeptID
WHERE e.Salary > (
    SELECT AVG(Salary) FROM Employees
    WHERE DeptID = e.DeptID
);
```

Script Output x | Query Result x | Query Result 1 x | Query Result 2 x |

SQL | All Rows Fetched: 1 in 0.016 seconds

	EMPNAME	SALARY	DEPTNAME
1	Ali	60000	HR

#### TASK 16:

```
--TASK 16
SELECT d.DeptName FROM Departments d
WHERE NOT EXISTS (
    SELECT 1 FROM Employees e
    WHERE e.DeptID = d.DeptID AND e.Salary < 30000
);
```

Script Output x | Query Result x | Query Result 1 x | Query Result 2 x |

SQL | All Rows Fetched: 4 in 0 seconds

	DEPTNAME
1	Marketing
2	Finance
3	HR
4	IT

### TASK 17:

```
--TASK 17
SELECT s.StudentName, c.CourseName FROM Students s
JOIN Enrollments en ON s.StudentID = en.StudentID
JOIN Courses c ON en.CourseID = c.CourseID
WHERE s.City = 'Lahore';
```

Script Output x | Query Result x | Query Result 1 x | Query Result 2 x |

SQL | All Rows Fetched: 2 in 0.015 seconds

	STUDENTNAME	COURSENAME
1	Ayesha	Database
2	Fatima	Database

### TASK 18:

```
--TASK 18
SELECT e.EmpName, NVL(m.EmpName, 'No Manager') AS Manager, d.DeptName, e.HireDate FROM Employees e
LEFT OUTER JOIN Employees m ON e.ManagerID = m.EmpID
LEFT OUTER JOIN Departments d ON e.DeptID = d.DeptID
WHERE e.HireDate BETWEEN DATE '2020-01-01' AND DATE '2023-01-01';
```

Script Output x | Query Result x | Query Result 1 x | Query Result 2 x | Query Result 3 x | Query Result 4 x | Query R

SQL | All Rows Fetched: 4 in 0.016 seconds

	EMPNAME	MANAGER	DEPTNAME	HIREDATE
1	Sara	Ali	HR	15-MAR-21
2	Zara	Ahmed	Finance	01-JAN-22
3	Omar	No Manager	(null)	10-SEP-21
4	Ali	No Manager	HR	10-MAY-20

### TASK 19:

--TASK 19		
<pre> SELECT s.StudentName, c.CourseName FROM Students s JOIN Enrollments en ON s.StudentID = en.StudentID JOIN Courses c ON en.CourseID = c.CourseID JOIN Teachers t ON c.TeacherID = t.TeacherID WHERE t.TeacherName = 'Sir Ali'; </pre>		
<div> <div>Script Output x</div> <div>Query Result x</div> <div>Query Result 1 x</div> <div>Query Result 2 x</div> </div>		
<div> <div>SQL</div> <div>All Rows Fetched: 2 in 0.008 seconds</div> </div>		
	STUDENTNAME	COURSENAME
1	Ayesha	Database
2	Fatima	Database

## TASK 20:

--TASK 20		
<pre> SELECT e.EmpName, m.EmpName AS Manager, d.DeptName FROM Employees e JOIN Employees m ON e.ManagerID = m.EmpID JOIN Departments d ON e.DeptID = d.DeptID WHERE e.DeptID = m.DeptID; </pre>		
<div> <div>Script Output x</div> <div>Query Result x</div> <div>Query Result 1 x</div> <div>Query Result 2 x</div> </div>		
<div> <div>SQL</div> <div>All Rows Fetched: 1 in 0.008 seconds</div> </div>		
	EMPNAME	MANAGER
1	Sara	Ali
		HR

--TASK 11

```
SELECT s.StudentName, t.TeacherName, s.City FROM Students s JOIN Teachers t ON  
s.City = t.City;
```

--TASK 12

```
SELECT e.EmpName, NVL(m.EmpName, 'No Manager') AS Manager FROM Employees e  
LEFT OUTER JOIN Employees m ON e.ManagerID = m.EmpID;
```

--TASK 13

```
SELECT EmpName FROM Employees WHERE DeptID IS NULL;
```

--TASK 14

```
SELECT d.DeptName, AVG(e.Salary) AS AvgSalary FROM Departments d JOIN Employees e  
ON d.DeptID = e.DeptID GROUP BY d.DeptName HAVING AVG(e.Salary) > 50000;
```

--TASK 15

```
SELECT e.EmpName, e.Salary, d.DeptName FROM Employees e JOIN Departments d ON  
e.DeptID = d.DeptID WHERE e.Salary > ( SELECT AVG(Salary) FROM Employees WHERE  
DeptID = e.DeptID );
```

--TASK 16

```
SELECT d.DeptName FROM Departments d WHERE NOT EXISTS ( SELECT 1 FROM  
Employees e WHERE e.DeptID = d.DeptID AND e.Salary < 30000 );
```

--TASK 17

```
SELECT s.StudentName, c.CourseName FROM Students s JOIN Enrollments en ON  
s.StudentID = en.StudentID JOIN Courses c ON en.CourseID = c.CourseID WHERE s.City =  
'Lahore';
```

--TASK 18

```
SELECT e.EmpName, NVL(m.EmpName, 'No Manager') AS Manager, d.DeptName,  
e.HireDate FROM Employees e LEFT OUTER JOIN Employees m ON e.ManagerID =  
m.EmpID LEFT OUTER JOIN Departments d ON e.DeptID = d.DeptID WHERE e.HireDate  
BETWEEN DATE '2020-01-01' AND DATE '2023-01-01';
```

--TASK 19

```
SELECT s.StudentName, c.CourseName FROM Students s JOIN Enrollments en ON  
s.StudentID = en.StudentID JOIN Courses c ON en.CourseID = c.CourseID JOIN Teachers t  
ON c.TeacherID = t.TeacherID WHERE t.TeacherName = 'Sir Ali';
```

--TASK 20

```
SELECT e.EmpName, m.EmpName AS Manager, d.DeptName FROM Employees e JOIN  
Employees m ON e.ManagerID = m.EmpID JOIN Departments d ON e.DeptID = d.DeptID  
WHERE e.DeptID = m.DeptID;
```