

## ASSIGNMENT 6 DBMS

```
CREATE TABLE dept (  
    deptno NUMBER PRIMARY KEY,  
    deptname VARCHAR2(50)  
);  
  
CREATE TABLE emp (  
    empno NUMBER PRIMARY KEY,  
    empname VARCHAR2(50),  
    deptno NUMBER,  
    job VARCHAR2(50),  
    salary NUMBER(10, 2),  
    CONSTRAINT emp_dept_fk FOREIGN KEY (deptno) REFERENCES dept(deptno)  
);
```

```
INSERT INTO dept VALUES (20, 'Dept20');  
INSERT INTO dept VALUES (30, 'Dept30');  
INSERT INTO dept VALUES (40, 'Dept40');  
INSERT INTO dept VALUES (50, 'Dept50');  
INSERT INTO dept VALUES (60, 'Dept60');  
INSERT INTO dept VALUES (70, 'Dept70');  
INSERT INTO dept VALUES (80, 'Dept80');  
INSERT INTO dept VALUES (90, 'Dept90');  
INSERT INTO dept VALUES (100, 'Dept100');  
INSERT INTO dept VALUES (110, 'Dept110');
```

```
INSERT INTO emp VALUES (1, 'Employee1', 'Job1', 2000, 20, NULL);  
INSERT INTO emp VALUES (2, 'Employee2', 'Job2', 2500, 20, 1);  
INSERT INTO emp VALUES (3, 'Employee3', 'Job3', 3000, 30, 1);  
INSERT INTO emp VALUES (4, 'Employee4', 'Job1', 2200, 30, 2);  
INSERT INTO emp VALUES (5, 'Employee5', 'Job2', 2600, 40, 2);  
INSERT INTO emp VALUES (6, 'Employee6', 'Job3', 3100, 40, 3);  
INSERT INTO emp VALUES (7, 'Employee7', 'Job1', 2300, 50, 3);  
INSERT INTO emp VALUES (8, 'Employee8', 'Job2', 2700, 50, 4);  
INSERT INTO emp VALUES (9, 'Employee9', 'Job3', 3200, 60, 4);  
INSERT INTO emp VALUES (10, 'Employee10', 'Job1', 2400, 60, 5);
```

```
SELECT COUNT(*) AS total_employees FROM emp;  
SELECT COUNT(*) AS total_departments FROM dept;
```

```
SELECT d.dept_name, e.emp_name, e.job, e.sal  
FROM dept d  
LEFT JOIN emp e ON d.deptno = e.deptno;
```

```
SELECT SUM(sal) AS total_salary, MAX(sal) AS max_salary, MIN(sal) AS min_salary  
FROM emp  
WHERE deptno = 30;
```

```
SELECT emp_name  
FROM emp  
WHERE sal = (SELECT MAX(sal) FROM emp);
```

```
SELECT d.dept_name, SUM(e.sal) AS total_salary
FROM dept d
LEFT JOIN emp e ON d.deptno = e.deptno
GROUP BY d.dept_name;
```

```
SELECT job, SUM(sal) AS total_salary
FROM emp
GROUP BY job;
```

```
SELECT d.dept_name, e.job, SUM(e.sal) AS total_salary
FROM dept d
LEFT JOIN emp e ON d.deptno = e.deptno
GROUP BY d.dept_name, e.job;
```

```
SELECT job, AVG(sal) AS average_salary
FROM emp
WHERE deptno = 20
GROUP BY job;
```