

JFS Task – Database MySQL

-- create

```
CREATE TABLE Empl (  
  empno int PRIMARY KEY,  
  ename varchar(15),  
  job varchar(15),  
  mgr int(6),  
  hiredate date,  
  sal decimal(6,2),  
  comm decimal(6,2),  
  deptno int(3)  
);
```

-- insert

```
INSERT INTO Empl VALUES (8369, 'SMITH', 'CLERK', 8902, '1990-12-18', 800.00, NULL, 20);  
INSERT INTO Empl VALUES (8499, 'ANYA', 'SALESMAN', 8698, '1991-02-20', 1600.00, 300.00, 30);  
INSERT INTO Empl VALUES (8521, 'SETH', 'SALESMAN', 8698, '1991-02-22', 1250.00, 500.00, 30);  
INSERT INTO Empl VALUES (8566, 'MAHADEVAN', 'MANAGER', 8839, '1991-04-02', 2985.00, NULL, 20);  
INSERT INTO Empl VALUES (8654, 'MOMIN', 'SALESMAN', 8698, '1991-09-28', 1250.00, 1400.00, 30);  
INSERT INTO Empl VALUES (8698, 'BINA', 'MANAGER', 8839, '1991-05-01', 2850.00, NULL, 30);  
INSERT INTO Empl VALUES (8882, 'SHIVANSH', 'MANAGER', 8839, '1991-06-09', 2450.00, NULL, 10);  
INSERT INTO Empl VALUES (8888, 'SCOTT', 'ANALYST', 8566, '1992-12-09', 3000.00, NULL, 20);  
INSERT INTO Empl VALUES (8839, 'AMIR', 'PRESIDENT', NULL, '1991-11-18', 5000.00, NULL, 10);  
INSERT INTO Empl VALUES (8844, 'KULDEEP', 'SALESMAN', 8698, '1991-09-08', 1500.00, 0.00, 30);
```

-- fetch

```
SELECT * FROM Empl;
```

Output:

empno	ename	job	mgr	hiredate	sal	comm	deptno
8369	SMITH	CLERK	8902	1990-12-18	800.00	NULL	20
8499	ANYA	SALESMAN	8698	1991-02-20	1600.00	300.00	30
8521	SETH	SALESMAN	8698	1991-02-22	1250.00	500.00	30
8566	MAHADEVAN	MANAGER	8839	1991-04-02	2985.00	NULL	20
8654	MOMIN	SALESMAN	8698	1991-09-28	1250.00	1400.00	30
8698	BINA	MANAGER	8839	1991-05-01	2850.00	NULL	30
8839	AMIR	PRESIDENT	NULL	1991-11-18	5000.00	NULL	10
8844	KULDEEP	SALESMAN	8698	1991-09-08	1500.00	0.00	30
8882	SHIVANSH	MANAGER	8839	1991-06-09	2450.00	NULL	10
8888	SCOTT	ANALYST	8566	1992-12-09	3000.00	NULL	20

1) Write SQL commands:

A. select ename, sal from empl where sal >= 2200;

```
mysql> select ename, sal from empl where sal >= 2200;
+-----+-----+
| ename   | sal      |
+-----+-----+
| MAHADEVAN | 2985.00 |
| BINA     | 2850.00 |
| AMIR     | 5000.00 |
| SHIVANSH | 2450.00 |
| SCOTT    | 3000.00 |
+-----+-----+
5 rows in set (0.00 sec)
```

B. select * from empl where comm is null;

```
mysql> select * from empl where comm is null;
+-----+-----+-----+-----+-----+-----+-----+-----+
| empno | ename   | job      | mgr | hiredate | sal      | comm | deptno |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 8369  | SMITH   | CLERK    | 8902 | 1990-12-18 | 800.00 | NULL | 20      |
| 8566  | MAHADEVAN | MANAGER | 8839 | 1991-04-02 | 2985.00 | NULL | 20      |
| 8698  | BINA    | MANAGER | 8839 | 1991-05-01 | 2850.00 | NULL | 30      |
| 8839  | AMIR    | PRESIDENT | NULL | 1991-11-18 | 5000.00 | NULL | 10      |
| 8882  | SHIVANSH | MANAGER | 8839 | 1991-06-09 | 2450.00 | NULL | 10      |
| 8888  | SCOTT   | ANALYST  | 8566 | 1992-12-09 | 3000.00 | NULL | 20      |
+-----+-----+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

C. select ename, sal from empl where sal not between 2500 and 4000;

```
mysql> select ename, sal from empl where sal not between 2500 and 4000;
+-----+-----+
| ename   | sal      |
+-----+-----+
| SMITH   | 800.00   |
| ANYA    | 1600.00  |
| SETH    | 1250.00  |
| MOMIN   | 1250.00  |
| AMIR    | 5000.00  |
| KULDEEP | 1500.00  |
| SHIVANSH | 2450.00 |
+-----+-----+
7 rows in set (0.00 sec)
```

D. select ename, job, sal from empl where mgr is null;

```
mysql> select ename, job, sal from empl where mgr is null;
+-----+-----+-----+
| ename | job      | sal      |
+-----+-----+-----+
| AMIR  | PRESIDENT | 5000.00 |
+-----+-----+-----+
1 row in set (0.00 sec)
```

E. select ename from empl where ename like '__a%';

```
mysql> select ename from empl where ename like '__a%';  
Empty set (0.00 sec)
```

F. select ename from empl where ename like '%t';

```
mysql> select ename from empl where ename like '%t';  
+-----+  
| ename |  
+-----+  
| SCOTT |  
+-----+  
1 row in set (0.00 sec)
```

2) Write a program for JDBC connectivity and insert the data.

```
mysql> create table emp(empcode int(5) primary key, empname varchar(10), empage int(3), esalary int(7));  
Query OK, 0 rows affected, 3 warnings (0.04 sec)  
  
mysql> |
```

Program:

```
package com.jdbc;
```

```
import java.sql.*;  
  
public class JDBCExample {  
    static final String DB_URL = "jdbc:mysql://localhost:3306/employee";  
    static final String USER = "root";  
    static final String PASS = "root";  
    public static void main(String args[]) {  
        try{  
            Connection conn = DriverManager.getConnection(DB_URL, USER, PASS);  
            Statement stmt = conn.createStatement();  
            stmt.execute("INSERT INTO emp VALUES(101, 'Jenny', 25, 10000), (102, 'Jacky', 30, 20000),  
            (103, 'Joe', 20, 40000), (104, 'John', 40, 80000), (105, 'Shameer', 25, 90000)");  
            System.out.println("\n----- Successfully inserted into table emp ----\n\n");  
            System.out.println("Displaying records from emp table, showing inserted values\n");  
            ResultSet rs = stmt.executeQuery("select * from emp");  
            System.out.println("empcode " + "empname " + "\tempage " + "\tesalary");  
            System.out.println("-----");  
            while(rs.next()){  
                System.out.println(rs.getInt(1) + "\t " + rs.getString(2) + "\t\t " + rs.getInt(3) + "\t " +  
                rs.getInt(4));  
            }  
        }  
    }  
}
```

```
}catch(SQLException e){  
e.printStackTrace();  
}  
}  
}
```

Output:

----- Successfully inserted into table emp ----

Displaying records from emp table, showing inserted values

empcode	empname	empage	esalary
101	Jenny	25	10000
102	Jacky	30	20000
103	Joe	20	40000
104	John	40	80000
105	Shameer	25	90000