Practical-10

JDBC

1. Develop a java application to accept employee information and store in Employee(empid, name, dept and salary) table. Also provide following functionality.

   a) Add new employee

   b) Update employee details (base on empid)

   c) Delete employee

   d) Display all employee

   e) Display maximum and minimum salary employee details

   f) Display employee information according to their department(Group by)

Code:-

```java
importjava.sql.*;
importjava.util.*;
class Lab10
{
        public static void main(String args[])throws SQLException
        {
                Scanner sc=new Scanner(System.in);
                Scanner sc1=new Scanner(System.in);
                Connection con=null;
                try
                {
                        Class.forName("com.mysql.cj.jdbc.Driver");
                        String url = "jdbc:mysql://localhost:3306/EmpDb";
                        con = DriverManager.getConnection (url, "root","PASSWORD");
                        String qsIns="insert into employee(empid,name,dept,salary) values(?,?,?,?)";
                        System.out.println("****************************Insert Employee Details************************");
```

```java
PreparedStatementpstIns= con.prepareStatement(qsIns);

System.out.print("Enter Employee Id:");

int id=sc.nextInt();

pstIns.setInt(1,id);

System.out.print("Enter Employee Name:");

String nm=sc1.next();

pstIns.setString(2,nm);

System.out.print("Enter Employee Department:");

String dep=sc1.next();

pstIns.setString(3,dep);

System.out.print("Enter Employee Salary:");

Double sal=sc.nextDouble();

pstIns.setDouble(4,sal);

inti=pstIns.executeUpdate();

System.out.println("inserted row "+i);


System.out.println("*********************************************
********************");

String qsU="update employee set name=? whereempid=?";


System.out.println("************************Update Employee
Details********************");

PreparedStatementpstU= con.prepareStatement(qsU);

System.out.print("Enter Id which name you want to update:");

intidU=sc.nextInt();

pstU.setInt(2,idU);

System.out.print("Enter new Name:");

String nmU=sc1.next();

pstU.setString(1,nmU);

System.out.println("Uptated row
"+pstU.executeUpdate()+"................");

String qsD="delete from employee where empid=?";
```

```java
System.out.println("-------------------------------------------------------------------------");

System.out.println("****************************Delete Employee Details**************************");

PreparedStatementpstD= con.prepareStatement(qsD);

System.out.print("Enter Id which name you want to Delete:");

intidD=sc.nextInt();

pstD.setInt(1,idD);

System.out.println("Deleted row "+pstD.executeUpdate()+"................");

System.out.println("-------------------------------------------------------------------------");

Statement smntMax= con.createStatement( );

        String qsMax="select * from employee where salary in ( select max(salary) from employee);";

ResultSetresMax=smntMax.executeQuery(qsMax);

booleanmoreMax=resMax.next();


System.out.println("*********************Employee Details[Maximum Salary]*************************");

System.out.println("EmpId\tName\tDepartment\tSalary ");

while(moreMax)
{
        System.out.printf("%5d|",resMax.getInt( 1 ));

        System.out.printf("%10s|",resMax.getString( 2 ));

        System.out.printf("%10s|",resMax.getString( 3 ));

        System.out.printf("%10s|",resMax.getString( 4 ));

        System.out.println("");

        moreMax= resMax.next();
}
System.out.println("-------------------------------------------------------------------------");

Statement smntMin= con.createStatement( );
```

```java
String qsMin="select * from employee where salary in ( select
min(salary) from employee);";

ResultSetresMin=smntMin.executeQuery(qsMin);

booleanmoreMin=resMin.next();

System.out.println("------------------------Employee Details[Minimum
Salary]------------------------");

System.out.println("EmpId\tName\tDepartment\tSalary ");

while(moreMin)

{

        System.out.printf("%5d|",resMin.getInt( 1 ));

        System.out.printf("%10s|",resMin.getString( 2 ));

        System.out.printf("%10s|",resMin.getString( 3 ));

        System.out.printf("%10s|",resMin.getString( 4 ));

        System.out.println("");

        moreMin= resMin.next();

}

        System.out.println("----------------------------------------------------
        ------");

Statement smntDis= con.createStatement( );

String qsDis="select * from employee order by deptdesc";

ResultSetresDis=smntDis.executeQuery(qsDis);

booleanmoreDis=resDis.next();

System.out.println("************************Employee Details[Group By
Department]************************");

System.out.println("EmpId\tName\tDepartment\tSalary ");

while(moreDis)

{

        System.out.printf("%5d|",resDis.getInt( 1 ));

        System.out.printf("%10s|",resDis.getString( 2 ));

        System.out.printf("%10s|",resDis.getString( 3 ));

        System.out.printf("%10s|",resDis.getString( 4 ));

        System.out.println("");

        moreDis= resDis.next();
```

```
            }
    System.out.println("*******************************************
**");

    }

    catch ( Exception ex)

    {

            System.out.println( "Error on data select" +ex);

            ex.printStackTrace();

    }

    finally

    {

            con.close();

    }

    }

}
```

Output:-

```
*********************InsertEmployeeDetails************************
Enter Employee Id:75
Enter Employee Name: JAYMIN
Enter Employee Department: MCA
Enter Employee Salary: 100000
inserted row 1
-----------------------------------------------------------------------------------------------------
***********************Update Employee Details*******************
Enter Id which name you want to update: 75
Enter new Name:
JAYMIN
Uptated row 1...............
----------------------------------------------------------------------------------------------------
***********************Delete Employee Details*********************
Enter Id which name you want to Delete: 3
Deleted row 0...............
----------------------------------------------------------------------------------------------------
*******************Employee Details[Maximum Salary]****************
EmpIdName    Department    Salary
   1|    JAYMIN|        MCA    |    100000.00|
----------------------------------------------------------------------------------------------------
```