**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.
   1. Add new employee
   2. Update employee details (base on empid)
   3. Delete employee
   4. Display all employee
   5. Display maximum and minimum salary employee details
   6. Display employee information according to their department(Group by)

**Code:-**

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\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

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=?";

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( );

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|

------------------------------------------------------------------------------------------------------