**JDBC ASSIGNMENT =======🡺**

***ConnectionPool.java EMP***

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\* To change this template file, choose Tools | Templates

\* and open the template in the editor.

\*/

package

com.task.utility;

/\*\*

\*

\* @author Vikash singh

\*/

import java.sql.\*;

import java.util.logging.Level;

import java.util.logging.Logger;

public class ConnectionPool {

static Connection conn;

public static Connection connectDB(){

try {

//step1: REGISTER THE DRIVER

Class.forName("com.mysql.cj.jdbc.Driver");

//STEP2: CREATE THE CONNECTION

String url="jdbc:mysql://localhost:3306/empdb";

String userName="root";

String password="Vikash@1006";

conn=DriverManager.getConnection(url, userName, password);

System.out.println("Database Connection Success");

} catch (ClassNotFoundException ex) {

Logger.getLogger(ConnectionPool.class.getName()).log(Level.SEVERE, null, ex);

} catch (SQLException ex) {

Logger.getLogger(ConnectionPool.class.getName()).log(Level.SEVERE, null, ex);

}

return conn;

}

public static void main(String[] args) {

connectDB();

}

}

***EmpBean.java 🡺***

package com.task.bean;

/\*\*

\*

\* @author Vikash Singh

public class EmpBean {

private int empno;

private String ename;

private String job;

private int mgr;

private String hiredate;

private float sal;

private float comm;

private int deptno;

public EmpBean() {

}

public EmpBean(int empno, String ename, String job, int mgr, String hiredate, float sal, float comm, int deptno) {

this.empno = empno;

this.ename = ename;

this.job = job;

this.mgr = mgr;

this.hiredate = hiredate;

this.sal = sal;

this.comm = comm;

this.deptno = deptno;

}

public int getEmpno() {

return empno;

}

public void setEmpno(int empno) {

this.empno = empno;

}

public String getEname() {

return ename;

}

public void setEname(String ename) {

this.ename = ename;

}

public String getJob() {

return job;

}

public void setJob(String job) {

this.job = job;

}

public int getMgr() {

return mgr;

}

public void setMgr(int mgr) {

this.mgr = mgr;

}

public String getHiredate() {

return hiredate;

}

public void setHiredate(String hiredate) {

this.hiredate = hiredate;

}

public float getSal() {

return sal;

}

public void setSal(float sal) {

this.sal = sal;

}

public float getComm() {

return comm;

}

public void setComm(float comm) {

this.comm = comm;

}

public int getDeptno() {

return deptno;

}

public void setDeptno(int deptno) {

this.deptno = deptno;

}

**EmpDAO.java ============🡺**

package com.task.DAO;

/\*\*

\*

\* @author Vikash Singh

import com.task.bean.EmpBean;

import com.task.utility.ConnectionPool;

import java.sql.\*;

import java.util.logging.Level;

import java.util.logging.Logger;

//

//

public class EmpDAO {

static Connection conn;

***ADD EMP 🡺🡺***

public int addEmp(EmpBean eb){

int r=0;

// //step1:

// //step2:

conn=ConnectionPool.connectDB();

//step3: Wrtite SQL Query

String sql="insert into emp values('"+eb.getEmpno()+"','"+eb.getEname()+"','"+eb.getJob()+"','"+eb.getMgr()+"','"+eb.getHiredate()+"','"+eb.getSal()+"','"+eb.getComm()+"','"+eb.getDeptno()+"')";

try {

// //step4: Create Object of Statement

Statement stmt=conn.createStatement();

// //step5: call executeUpdate()

r=stmt.executeUpdate(sql);

// //step6: close the connection

conn.close();

} catch (SQLException ex) {

Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);

}

return r;

}

public static void main(String[] args) {

EmpBean eb=new EmpBean();

eb.setEmpno(1111);

eb.setJob("CLK");

eb.setMgr(7777);

eb.setHiredate("2000-02-02");

eb.setEname("jonny jonny");

eb.setSal((float) 555555);

eb.setComm((float) 200);

eb.setDeptno(20);

EmpDAO ed=new EmpDAO();

int result=ed.addEmp(eb);

if(result>0){

System.out.println("Emp Added Success");

}else{

System.out.println("Emp Not Added");

}

}

}

***UPDATE EMP🡺***

**package com.task.DAO;**

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**public class EmpDAO {**

**static Connection conn;**

**public int UpdateEmp(EmpBean eb){**

**int r=0;**

**// //step1:**

**// //step2:**

**conn=ConnectionPool.connectDB();**

**//step3: Wrtite SQL Query**

**// int total=sb.getP()+sb.getC()+sb.getE()+sb.getH()+sb.getM();**

**// float per=total/5.0f;**

**String sql="update emp set ename = '"+eb.getEname()+"',job = '"+eb.getJob()+"',mgr = '"+eb.getMgr()+"', hiredate = '"+eb.getHiredate()+"',sal = '"+eb.getSal()+"',comm ='"+eb.getComm()+"',deptno ='"+eb.getDeptno()+"' where empno = '"+eb.getEmpno()+"'";**

**try {**

**// //step4: Create Object of Statement**

**Statement stmt=conn.createStatement();**

**// //step5: call executeUpdate()**

**r=stmt.executeUpdate(sql);**

**// //step6: close the connection**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**return r;**

**}**

**public static void main(String[] args) {**

**EmpBean eb=new EmpBean();**

**eb.setEmpno(800);**

**eb.setEname("jonny upadate");**

**eb.setJob("CLK");**

**eb.setMgr(7777);**

**eb.setHiredate("2000-02-02");**

**eb.setSal(590555);**

**eb.setComm(200);**

**eb.setDeptno(20);**

**EmpDAO ed=new EmpDAO();**

**int result=ed.UpdateEmp(eb);**

**if(result>0){**

**System.out.println("Emp data update Success");**

**}else{**

**System.out.println("Emp data not updated Not");**

**}**

**}**

**}**

***DELETE EMP 🡺***

**package com.task.DAO;**

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**public class EmpDAO {**

**static Connection conn;**

**public int DeleteEmp(int empno){**

**int r=0;**

**// //step1:**

**// //step2:**

**conn=ConnectionPool.connectDB();**

**//step3: Wrtite SQL Query**

**// int total=sb.getP()+sb.getC()+sb.getE()+sb.getH()+sb.getM();**

**// float per=total/5.0f;**

**String sql="delete from emp where empno = '"+empno+"'";**

**try {**

**// //step4: Create Object of Statement**

**Statement stmt=conn.createStatement();**

**// //step5: call executeUpdate()**

**r=stmt.executeUpdate(sql);**

**// //step6: close the connection**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**return r;**

**}**

**public static void main(String[] args) {**

**EmpBean eb=new EmpBean();**

**// eb.setEmpno(800);**

**eb.setJob("clk");**

**eb.setMgr(7777);**

**eb.setHiredate("2000-02-02");**

**eb.setEname("Jonny update");**

**eb.setSal((float) 590555);**

**eb.setComm((float) 200);**

**eb.setDeptno(20);**

**EmpDAO ed=new EmpDAO();**

**int result=ed.DeleteEmp(800);**

**if(result>0){**

**System.out.println("Emp data deleted Success");**

**}else{**

**System.out.println("Emp data not deleted");**

**}**

**}**

**}**

***FIND ALL 🡺***

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO{**

**static Connection conn;**

**public ArrayList<EmpBean> findAll(){**

**conn = ConnectionPool.connectDB();**

**ArrayList<EmpBean> list = new ArrayList<EmpBean>();**

**// // step 3 ; write sql query select**

**String sql = "select \* from emp";**

**try{**

**// // step 4: create an object of statment**

**//**

**Statement stmt = conn.createStatement();**

**//**

**// // step 5: call execute query**

**ResultSet rs = stmt.executeQuery(sql);**

**// // step : 6 extract dat from the REsultset and add into arraylist**

**//**

**while( rs.next()){**

**EmpBean x =new EmpBean();**

**//**

**// // step 1 : fetch dat from resulset and set into the bean**

**x.setEmpno(rs.getInt("empno"));**

**x.setEname(rs.getString("ename"));**

**x.setJob(rs.getString("job"));**

**x.setMgr(rs.getInt("mgr"));**

**x.setHiredate(rs.getString("hiredate"));**

**x.setSal(rs.getFloat("sal"));**

**x.setComm(rs.getFloat("comm"));**

**x.setDeptno(rs.getInt("deptno"));**

**// step 2 : add bean object into list**

**list.add(x);**

**//**

**}**

**//**

**// // step 7 : close the connection**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**return list;**

**}**

**public static void main(String[] args){**

**EmpDAO ed = new EmpDAO();**

**ArrayList<EmpBean> al = ed.findAll();**

**for( EmpBean s: al){**

**System.out.println("\t"+s.getEmpno()+"\t"+s.getEname()+"\t"+s.getJob()+"\t"+s.getMgr()+"\t"+"\t"+s.getHiredate()+"\t"+s.getSal()+"\t"+s.getComm()+"\t"+s.getDeptno());**

**}**

**}**

**}**

***FIND BY ID 🡺***

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO{**

**static Connection conn;**

**public EmpBean findById(int id){**

**conn = ConnectionPool.connectDB();**

**// ArrayList<EmpBean> list = new ArrayList<EmpBean>();**

**EmpBean x =new EmpBean();**

**// // step 3 ; write sql query select**

**String sql = "select \* from emp where empno = '"+id+"'";**

**try{**

**// // step 4: create an object of statment**

**//**

**Statement stmt = conn.createStatement();**

**//**

**// // step 5: call execute query**

**ResultSet rs = stmt.executeQuery(sql);**

**// // step : 6 extract dat from the REsultset and add into arraylist**

**//**

**while( rs.next()){**

**//**

**// // step 1 : fetch dat from resulset and set into the bean**

**x.setEmpno(rs.getInt("empno"));**

**x.setEname(rs.getString("ename"));**

**x.setJob(rs.getString("job"));**

**x.setMgr(rs.getInt("mgr"));**

**x.setHiredate(rs.getString("hiredate"));**

**x.setSal(rs.getFloat("sal"));**

**x.setComm(rs.getFloat("comm"));**

**x.setDeptno(rs.getInt("deptno"));**

**// step 2 : add bean object into list**

**//**

**}**

**//**

**// // step 7 : close the connection**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**return x;**

**}**

**public static void main(String[] args){**

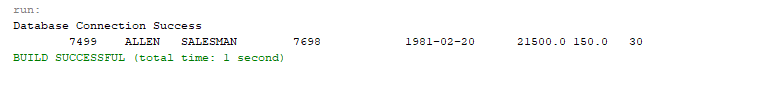
**EmpDAO ed = new EmpDAO();**

**EmpBean s = ed.findById(104);**

**System.out.println("\t"+s.getEmpno()+"\t"+s.getEname()+"\t"+s.getJob()+"\t"+s.getMgr()+"\t"+"\t"+s.getHiredate()+"\t"+s.getSal()+"\t"+s.getComm()+"\t"+s.getDeptno());**

**}**

**}**

****

***FINDALLBYDEPTNO 🡺***

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO{**

**static Connection conn;**

**public ArrayList<EmpBean> findAllByDeptno(int dpt){**

**conn = ConnectionPool.connectDB();**

**ArrayList<EmpBean> list = new ArrayList<EmpBean>();**

**// // step 3 ; write sql query select**

**String sql = "select \* from emp where deptno = '"+dpt+"'";**

**try{**

**// // step 4: create an object of statment**

**//**

**Statement stmt = conn.createStatement();**

**//**

**// // step 5: call execute query**

**ResultSet rs = stmt.executeQuery(sql);**

**// // step : 6 extract dat from the REsultset and add into arraylist**

**//**

**while( rs.next()){**

**EmpBean x =new EmpBean();**

**//**

**// // step 1 : fetch dat from resulset and set into the bean**

**x.setEmpno(rs.getInt("empno"));**

**x.setEname(rs.getString("ename"));**

**x.setJob(rs.getString("job"));**

**x.setMgr(rs.getInt("mgr"));**

**x.setHiredate(rs.getString("hiredate"));**

**x.setSal(rs.getFloat("sal"));**

**x.setComm(rs.getFloat("comm"));**

**x.setDeptno(rs.getInt("deptno"));**

**// step 2 : add bean object into list**

**list.add(x);**

**//**

**}**

**//**

**// // step 7 : close the connection**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**return list;**

**}**

**public static void main(String[] args){**

**// // 4 . call finall method**

**//**

**EmpDAO ed = new EmpDAO();**

**ArrayList<EmpBean> al = ed.findAllByDeptno(10);**

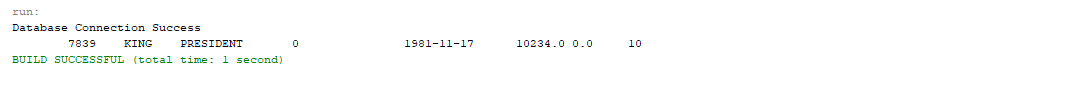
**for( EmpBean s: al){**

**System.out.println("\t"+s.getEmpno()+"\t"+s.getEname()+"\t"+s.getJob()+"\t"+s.getMgr()+"\t"+"\t"+s.getHiredate()+"\t"+s.getSal()+"\t"+s.getComm()+"\t"+s.getDeptno());**

**}**

**}**

**}**

****

***FIND BY JOB 🡺***

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO{**

**static Connection conn;**

**public EmpBean findByJob(String job){**

**conn = ConnectionPool.connectDB();**

**// ArrayList<EmpBean> list = new ArrayList<EmpBean>();**

**EmpBean x =new EmpBean();**

**// // step 3 ; write sql query select**

**String sql = "select \* from emp where job = '"+job+"'";**

**try{**

**// // step 4: create an object of statment**

**//**

**Statement stmt = conn.createStatement();**

**//**

**// // step 5: call execute query**

**ResultSet rs = stmt.executeQuery(sql);**

**// // step : 6 extract dat from the REsultset and add into arraylist**

**//**

**while( rs.next()){**

**//**

**// // step 1 : fetch dat from resulset and set into the bean**

**x.setEmpno(rs.getInt("empno"));**

**x.setEname(rs.getString("ename"));**

**x.setJob(rs.getString("job"));**

**x.setMgr(rs.getInt("mgr"));**

**x.setHiredate(rs.getString("hiredate"));**

**x.setSal(rs.getFloat("sal"));**

**x.setComm(rs.getFloat("comm"));**

**x.setDeptno(rs.getInt("deptno"));**

**// step 2 : add bean object into list**

**//**

**}**

**//**

**// // step 7 : close the connection**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**return x;**

**}**

**public static void main(String[] args){**

**// // 4 . call finall method**

**//**

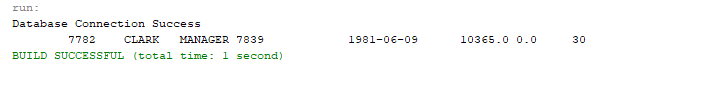
**EmpDAO ed = new EmpDAO();**

**EmpBean s = ed.findByJob("manager");**

**System.out.println("\t"+s.getEmpno()+"\t"+s.getEname()+"\t"+s.getJob()+"\t"+s.getMgr()+"\t"+"\t"+s.getHiredate()+"\t"+s.getSal()+"\t"+s.getComm()+"\t"+s.getDeptno());**

**}**

**}**

****

***FIND EMPLOYEE BY ASCENDING ( FLOAT SAL) 🡺 🡺***

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO{**

**static Connection conn;**

**private static float sal;**

**public ArrayList<EmpBean> findEmployeeInAsc(float sal){**

**conn = ConnectionPool.connectDB();**

**ArrayList<EmpBean> list = new ArrayList<EmpBean>();**

**// // step 3 ; write sql query select**

**String sql = "select \* from emp order by sal asc";**

**try{**

**// // step 4: create an object of statment**

**//**

**Statement stmt = conn.createStatement();**

**//**

**// // step 5: call execute query**

**ResultSet rs = stmt.executeQuery(sql);**

**// // step : 6 extract dat from the REsultset and add into arraylist**

**//**

**while( rs.next()){**

**EmpBean x =new EmpBean();**

**//**

**// // step 1 : fetch dat from resulset and set into the bean**

**x.setEmpno(rs.getInt("empno"));**

**x.setEname(rs.getString("ename"));**

**x.setJob(rs.getString("job"));**

**x.setMgr(rs.getInt("mgr"));**

**x.setHiredate(rs.getString("hiredate"));**

**x.setSal(rs.getFloat("sal"));**

**x.setComm(rs.getFloat("comm"));**

**x.setDeptno(rs.getInt("deptno"));**

**// step 2 : add bean object into list**

**list.add(x);**

**//**

**}**

**//**

**// // step 7 : close the connection**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**return list;**

**}**

**public static void main(String[] args){**

**// // 4 . call finall method**

**//**

**EmpDAO ed = new EmpDAO();**

**ArrayList<EmpBean> al = ed.findEmployeeInAsc(sal);**

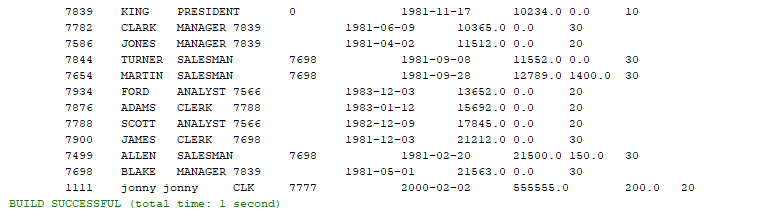
**al.forEach((s) -> {**

**System.out.println("\t"+s.getEmpno()+"\t"+s.getEname()+"\t"+s.getJob()+"\t"+s.getMgr()+"\t"+"\t"+s.getHiredate()+"\t"+s.getSal()+"\t"+s.getComm()+"\t"+s.getDeptno());**

**});**

**}**

**}**

****

***SORT EMPLOYEE DESCENDING(FLOAT SAL) 🡺🡺🡺***

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO{**

**static Connection conn;**

**private static float sal;**

**public ArrayList<EmpBean> findEmployeeInAsc(float sal){**

**conn = ConnectionPool.connectDB();**

**ArrayList<EmpBean> list = new ArrayList<EmpBean>();**

**// // step 3 ; write sql query select**

**String sql = "select \* from emp order by sal desc";**

**try{**

**// // step 4: create an object of statment**

**//**

**Statement stmt = conn.createStatement();**

**//**

**// // step 5: call execute query**

**ResultSet rs = stmt.executeQuery(sql);**

**// // step : 6 extract dat from the REsultset and add into arraylist**

**//**

**while( rs.next()){**

**EmpBean x =new EmpBean();**

**//**

**// // step 1 : fetch dat from resulset and set into the bean**

**x.setEmpno(rs.getInt("empno"));**

**x.setEname(rs.getString("ename"));**

**x.setJob(rs.getString("job"));**

**x.setMgr(rs.getInt("mgr"));**

**x.setHiredate(rs.getString("hiredate"));**

**x.setSal(rs.getFloat("sal"));**

**x.setComm(rs.getFloat("comm"));**

**x.setDeptno(rs.getInt("deptno"));**

**// step 2 : add bean object into list**

**list.add(x);**

**//**

**}**

**//**

**// // step 7 : close the connection**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**return list;**

**}**

**public static void main(String[] args){**

**// // 4 . call finall method**

**//**

**EmpDAO ed = new EmpDAO();**

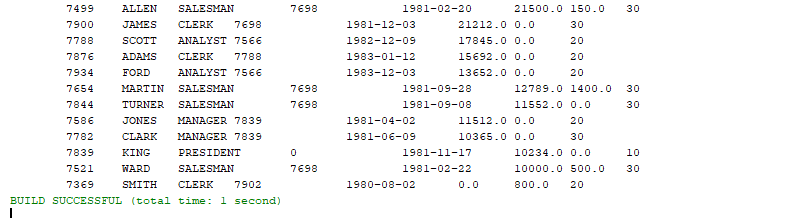
**ArrayList<EmpBean> al = ed.findEmployeeInAsc(sal);**

**al.forEach((s) -> {**

**System.out.println("\t"+s.getEmpno()+"\t"+s.getEname()+"\t"+s.getJob()+"\t"+s.getMgr()+"\t"+"\t"+s.getHiredate()+"\t"+s.getSal()+"\t"+s.getComm()+"\t"+s.getDeptno());**

**});**

**}**

**}** ****

**SORT EMPLOYEE BY ASCENDING( STRING ENAME) 🡺 🡺**

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO{**

**static Connection conn;**

**private static float sal;**

**public ArrayList<EmpBean> findEmployeeInAsc(String name){**

**conn = ConnectionPool.connectDB();**

**ArrayList<EmpBean> list = new ArrayList<EmpBean>();**

**// // step 3 ; write sql query select**

**String sql = "select \* from emp order by ename asc";**

**try{**

**// // step 4: create an object of statment**

**//**

**Statement stmt = conn.createStatement();**

**//**

**// // step 5: call execute query**

**ResultSet rs = stmt.executeQuery(sql);**

**// // step : 6 extract dat from the REsultset and add into arraylist**

**//**

**while( rs.next()){**

**EmpBean x =new EmpBean();**

**//**

**// // step 1 : fetch dat from resulset and set into the bean**

**x.setEmpno(rs.getInt("empno"));**

**x.setEname(rs.getString("ename"));**

**x.setJob(rs.getString("job"));**

**x.setMgr(rs.getInt("mgr"));**

**x.setHiredate(rs.getString("hiredate"));**

**x.setSal(rs.getFloat("sal"));**

**x.setComm(rs.getFloat("comm"));**

**x.setDeptno(rs.getInt("deptno"));**

**// step 2 : add bean object into list**

**list.add(x);**

**//**

**}**

**//**

**// // step 7 : close the connection**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**return list;**

**}**

**public static void main(String[] args){**

**// // 4 . call finall method**

**//**

**EmpDAO ed = new EmpDAO();**

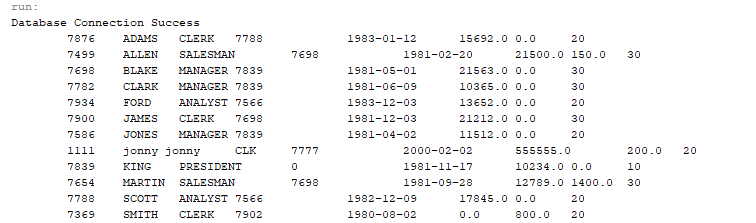
**ArrayList<EmpBean> al = ed.findEmployeeInAsc("name");**

**al.forEach((s) -> {**

**System.out.println("\t"+s.getEmpno()+"\t"+s.getEname()+"\t"+s.getJob()+"\t"+s.getMgr()+"\t"+"\t"+s.getHiredate()+"\t"+s.getSal()+"\t"+s.getComm()+"\t"+s.getDeptno());**

**});**

**}**

**}**

**SUM(SALARY) 🡺**

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO {**

**static Connection conn;**

**// Method to get total salary**

**public double SumSalary() {**

**conn = ConnectionPool.connectDB();**

**float totalSalary = 0;**

**String sql = "SELECT SUM(sal) AS total FROM emp";**

**try {**

**Statement stmt = conn.createStatement();**

**ResultSet rs = stmt.executeQuery(sql);**

**if (rs.next()) {**

**totalSalary = rs.getFloat("total"); // Fetch sum(sal)**

**}**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**return totalSalary;**

**}**

**public static void main(String[] args) {**

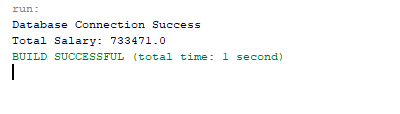
**EmpDAO ed = new EmpDAO();**

**double totalSal = ed.SumSalary();**

**System.out.println("Total Salary: " + totalSal);**

**}**

**}**

****

**SUM(SAL) BY DEPTNO 🡺**

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO {**

**static Connection conn;**

**// Method to get total salary**

**public double SumSalary(int deptno) {**

**conn = ConnectionPool.connectDB();**

**double totalSalary = 0;**

**String sql = "SELECT SUM(sal) as total from emp where deptno = '"+deptno+"'";**

**try {**

**Statement stmt = conn.createStatement();**

**ResultSet rs = stmt.executeQuery(sql);**

**if (rs.next()) {**

**totalSalary = rs.getFloat("total"); // Fetch sum(sal)**

**}**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**return totalSalary;**

**}**

**public static void main(String[] args) {**

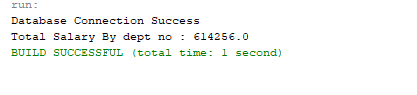
**EmpDAO ed = new EmpDAO();**

**double totalSal = ed.SumSalary(10);**

**System.out.println("Total Salary: " + totalSal);**

**}**

**}**

****

**SUM(SAL) BY JOB 🡺**

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO {**

**static Connection conn;**

**// Method to get total salary**

**public double SumSalaryByJob(String job) {**

**conn = ConnectionPool.connectDB();**

**double totalSalary = 0;**

**String sql = "SELECT SUM(sal) as total from emp where job = '"+job+"'";**

**try {**

**Statement stmt = conn.createStatement();**

**ResultSet rs = stmt.executeQuery(sql);**

**if (rs.next()) {**

**totalSalary = rs.getFloat("total"); // Fetch sum(sal)**

**}**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**return totalSalary;**

**}**

**public static void main(String[] args) {**

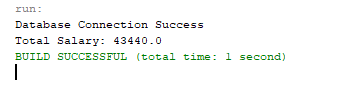
**EmpDAO ed = new EmpDAO();**

**double totalSal = ed.SumSalaryByJob("HR");**

**System.out.println("Total Salary: " + totalSal);**

**}**

**}**

****

**AVG(SAL) FROM EMP TABLE 🡪**

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO {**

**static Connection conn;**

**// Method to get total salary**

**public double AvgSalary() {**

**conn = ConnectionPool.connectDB();**

**float totalSalary = 0;**

**String sql = "SELECT AVG(sal) AS total FROM emp";**

**try {**

**Statement stmt = conn.createStatement();**

**ResultSet rs = stmt.executeQuery(sql);**

**if (rs.next()) {**

**totalSalary = rs.getFloat("total"); // Fetch sum(sal)**

**}**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**return totalSalary;**

**}**

**public static void main(String[] args) {**

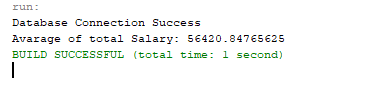
**EmpDAO ed = new EmpDAO();**

**double totalSal = ed.AvgSalary();**

**System.out.println("Total Salary: " + totalSal);**

**}**

**}**

****

**AVG(SALARY) BY job 🡪**

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO {**

**static Connection conn;**

**// Method to get total salary**

**public double AvgSalaryByJob(int deptno) {**

**conn = ConnectionPool.connectDB();**

**double totalSalary = 0;**

**String sql = "SELECT job,AVG(sal) as avg\_salary from emp where deptno = '"+deptno+"'";**

**try {**

**Statement stmt = conn.createStatement();**

**ResultSet rs = stmt.executeQuery(sql);**

**while (rs.next()) { // Iterate through multiple rows**

**String job = rs.getString("job");**

**double avgSalary = rs.getDouble("avg\_salary");**

**System.out.println( job+": "+ avgSalary);**

**}**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**return totalSalary;**

**}**

**public static void main(String[] args) {**

**EmpDAO ed = new EmpDAO();e**

**ed.AvgSalaryByJob(30);**

**}**

**}**

**FIND HIGHEST SALARY 🡺**

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO {**

**static Connection conn;**

**// Method to get total salary**

**public double FindMaxSalary() {**

**conn = ConnectionPool.connectDB();**

**double totalSalary = 0;**

**String sql = "SELECT MAX(sal) as max\_salary from emp";**

**try {**

**Statement stmt = conn.createStatement();**

**ResultSet rs = stmt.executeQuery(sql);**

**if (rs.next()) { // Iterate through multiple rows**

**double maxSalary = rs.getDouble("max\_salary");**

**System.out.println("HighestSalary: "+ maxSalary);**

**}**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**return totalSalary;**

**}**

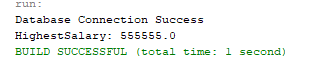
**public static void main(String[] args) {**

**EmpDAO ed = new EmpDAO();**

**ed.FindMaxSalary();**

**}**

**}**

****

***FIND TOP 4 HIGHEST SAL 🡺***

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO {**

**static Connection conn;**

**// Method to get employees with salary > 20000**

**public void getEmployeesWithHighSalary() {**

**conn = ConnectionPool.connectDB();**

**String sql = "SELECT \* FROM emp WHERE sal > 20000"; // Query to get employees with high salary**

**try {**

**PreparedStatement stmt = conn.prepareStatement(sql); // Use PreparedStatement**

**ResultSet rs = stmt.executeQuery();**

**while (rs.next()) {**

**int empId = rs.getInt("empno");**

**String name = rs.getString("ename");**

**String job = rs.getString("job");**

**int mgr = rs.getInt("mgr");**

**String hiredate = rs.getString("hiredate");**

**double salary = rs.getDouble("sal");**

**double comm = rs.getDouble("comm");**

**int dpt = rs.getInt("deptno");**

**System.out.println(empId + "\t" + name + "\t" + job + mgr + "\t"+ hiredate+"\t" + salary + "t"+comm + "\t"+dpt);**

**}**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**}**

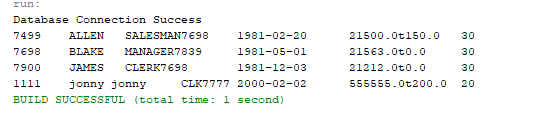
**public static void main(String[] args) {**

**EmpDAO ed = new EmpDAO();**

**ed.getEmployeesWithHighSalary();**

**}**

**}**

****

***FIND TOP 3 LOWEST SAL 🡺***

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO {**

**static Connection conn;**

**// Method to get employees with salary <20000**

**public void getEmployeesWithLowSalary() {**

**conn = ConnectionPool.connectDB();**

**String sql = "SELECT \* FROM emp WHERE sal < 20000"; // Query to get employees with high salary**

**try {**

**PreparedStatement stmt = conn.prepareStatement(sql); // Use PreparedStatement**

**ResultSet rs = stmt.executeQuery();**

**while (rs.next()) {**

**int empId = rs.getInt("empno");**

**String name = rs.getString("ename");**

**String job = rs.getString("job");**

**int mgr = rs.getInt("mgr");**

**String hiredate = rs.getString("hiredate");**

**double salary = rs.getDouble("sal");**

**double comm = rs.getDouble("comm");**

**int dpt = rs.getInt("deptno");**

**System.out.println(empId + "\t" + name + "\t" + job + mgr + "\t"+ hiredate+"\t" + salary + "t"+comm + "\t"+dpt);**

**}**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**}**

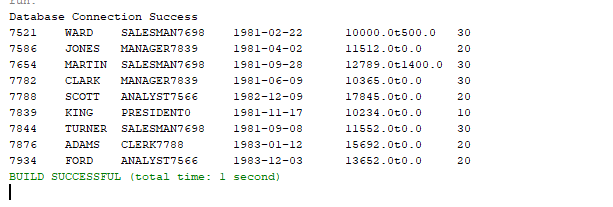
**public static void main(String[] args) {**

**EmpDAO ed = new EmpDAO();**

**ed.getEmployeesWithLowSalary();**

**}**

**}**

****

***FIND LOWEST SAL 🡺***

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO {**

**static Connection conn;**

**// Method to get total salary**

**public double FindLowSalary() {**

**conn = ConnectionPool.connectDB();**

**double totalSalary = 0;**

**String sql = "SELECT MIN(sal) as min\_salary from emp";**

**try {**

**Statement stmt = conn.createStatement();**

**ResultSet rs = stmt.executeQuery(sql);**

**if (rs.next()) { // Iterate through multiple rows**

**double LowSalary = rs.getDouble("min\_salary");**

**System.out.println("LowestSalary: "+ LowSalary);**

**}**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**return totalSalary;**

**}**

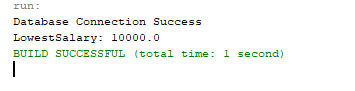
**public static void main(String[] args) {**

**EmpDAO ed = new EmpDAO();**

**ed.FindLowSalary();**

**}**

**}**

****

***COUNT NUMBER OF EMP 🡺***

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO {**

**static Connection conn;**

**// Method to get total salary**

**public void CountEmp() {**

**conn = ConnectionPool.connectDB();**

**String sql = "select count(\*) as cnt from emp";**

**try {**

**Statement stmt = conn.createStatement();**

**ResultSet rs = stmt.executeQuery(sql);**

**if (rs.next()) { // Iterate through multiple rows**

**int cnt = rs.getInt("cnt");**

**System.out.println("Count number of emp: "+ cnt);**

**}**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**}**

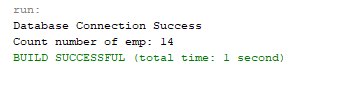
**public static void main(String[] args) {**

**EmpDAO ed = new EmpDAO();**

**ed.CountEmp();**

**}**

**}**

****

***COUNT NUMBER OF EMP BY JOB* 🡺**

**import com.task.bean.EmpBean;**

**import com.task.utility.ConnectionPool;**

**import java.sql.\*;**

**import java.util.ArrayList;**

**import java.util.logging.Level;**

**import java.util.logging.Logger;**

**class EmpDAO {**

**static Connection conn;**

**// Method to get total salary**

**public double countEmpByJob(String job) {**

**conn = ConnectionPool.connectDB();**

**double totalSalary = 0;**

**String sql = "select count(\*) as jb from emp where job = '"+job+"'";**

**try {**

**Statement stmt = conn.createStatement();**

**ResultSet rs = stmt.executeQuery(sql);**

**while (rs.next()) { // Iterate through multiple rows**

**String cnt = rs.getString("jb");**

**// double avgSalary = rs.getDouble("avg\_salary");**

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

**}**

**conn.close();**

**} catch (SQLException ex) {**

**Logger.getLogger(EmpDAO.class.getName()).log(Level.SEVERE, null, ex);**

**}**

**return totalSalary;**

**}**

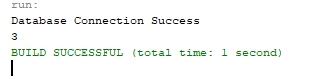
**public static void main(String[] args) {**

**EmpDAO ed = new EmpDAO();**

**ed.countEmpByJob("manager");**

**}**

**}**

****