Program 1: Retrieve all employee records from employeedb Database.

Source Code

```
import java.sql.*;
import java.util.*;
public class JDBCDemo
{
   Connection con=null;
   Statement stmt=null;

   JDBCDemo() throws ClassNotFoundException, SQLException
   {
         Class.forName("com.mysql.cj.jdbc.Driver");

con=DriverManager.getConnection("jdbc:mysql://localhost:3306/employe
edb","root","");

        stmt=con.createStatement();

        ResultSet rs=stmt.executeQuery("select * from pers");
        //System.out.println("Below is the list of employee working
in Deptt No."+ vardno);
        System.out.println("Employee Code\t Employee Name\t
Designation   \t Department No.");
        while(rs.next())
        {
            System.out.print(rs.getInt("empcode") + "       \t");
            System.out.print(rs.getString("empname")+ "       \t");
            System.out.print(rs.getString("designation")+ "   \t");
            System.out.println(rs.getInt("dno"));
         }
        con.close();
      }
      public static void main(String[] args)
      {
       // TODO Auto-generated method stub
       try{
             new JDBCDemo();
          }catch(Exception e){ e.printStackTrace();}
      }

}
```

Program2: How to insert records in pers table of employeedb

```
import java.util.*;
import java.sql.*;
public class JDBCExampleofDataEntry
{
      ResultSet rs;
      Connection con = null;

      public static void main(String[] args)
      {
            JDBCExampleofDataEntry obj = new
JDBCExampleofDataEntry();
           try
           {
                 Scanner sc = new Scanner(System.in);
                 Class.forName("com.mysql.cj.jdbc.Driver");
           Connection
con=DriverManager.getConnection("jdbc:mysql://localhost:3306/employe
edb","root","");
            int varempcode, vardno;
            String varempname, vardesignation;
            System.out.println("Enter Employee Code");
            varempcode = sc.nextInt();
            System.out.println("Enter Employee Name");
            varempname = sc.next();
            System.out.println("Enter Designation");
            vardesignation = sc.next();
            System.out.println("Enter Department No.");
            vardno = sc.nextInt();

Sring sql = "INSERT INTO pers (empcode,empname,designation,dno) " +
                        "Values ('"+varempcode+"'," +
                                   "'"+varempname+"'," +
                                   "'"+vardesignation+"'," +
                                   "'"+vardno+"')";

                 Statement st = con.createStatement();
                 st.executeUpdate(sql);

                 }
           camptch(Exception e1) {}
      }
      }
```

String sql = "UPDATE pers SET empcode = " + empcode + " WHERE empname = '" + empname + "'";

Program 3: How to update and retrieve records from employee database

```
import java.sql.*;

public class JDBCPreparedStatmentExample
{
   // JDBC driver name and database URL
   static final String JDBC_DRIVER = "com.mysql.cj.jdbc.Driver";
   static final String DB_URL =
"jdbc:mysql://localhost:3306/employeedb";

   //  Database credentials
   static final String USER = "root";
   static final String PASS = "";

   public static void main(String[] args)
   {
         Connection conn = null;
         PreparedStatement stmt = null;
         try
         {
               //STEP 2: Register JDBC driver
               Class.forName("com.mysql.jdbc.Driver");

               //STEP 3: Open a connection
               System.out.println("Connecting to database...");
               conn = DriverManager.getConnection(DB_URL,"root","");

               //STEP 4: Execute a query
               System.out.println("Creating statement...");
               String sql = "UPDATE pers set empcode=? WHERE
empname=?";
               stmt = conn.prepareStatement(sql);

               //Bind values into the parameters.
               stmt.setInt(1, 999);  // This would set age
               stmt.setString(2, "AAA"); // This would set ID

               // Let us update age of the record with ID = 102;
               int rows = stmt.executeUpdate();
               System.out.println("Rows impacted : " + rows );

               // Let us select all the records and display them.
               sql = "SELECT * FROM pers";
               ResultSet rs = stmt.executeQuery(sql);

               //STEP 5: Extract data from result set
               System.out.println("Employee Code\t Employee Name\t
Designation   \t Department No.");
```

```
            while(rs.next())
            {
                System.out.print(rs.getInt("empcode") + "
\t");
                System.out.print(rs.getString("empname")+ "
\t");
                System.out.print(rs.getString("designation")+ "
\t");
                System.out.println(rs.getInt("dno"));
             }

              rs.close();
              stmt.close();
              conn.close();
         }catch(SQLException se)
          {
              //Handle errors for JDBC
              se.printStackTrace();
          }catch(Exception e)
           {
            //Handle errors for Class.forName
            e.printStackTrace();
           }
           finally
           {
            //finally block used to close resources
            try
            {
                 if(stmt!=null)
                      stmt.close();
            }catch(SQLException se2)
              {
              }// nothing we can do
            try
            {
                 if(conn!=null)
                      conn.close();
            }catch(SQLException se)
             {
                 se.printStackTrace();
             }//end finally try
           }//end try
           System.out.println("Goodbye!");
      }//end main
}//end JDBCExample
```