**package** crud\_operation;

**import** java.sql.Connection;

**import** java.sql.PreparedStatement;

**import** java.sql.ResultSet;

**import** java.util.\*;

**public** **class** CRUD\_operation {

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

CRUD\_operation objTest=**new** CRUD\_operation();

/\*Scanner input=new Scanner(System.in);

int a=input.nextInt();

input.nextLine();

String b=input.nextLine();

String c=input.nextLine();

objTest.create\_data(a,b,c);

input.close();\*/

objTest.read\_data();

}

**public** **void** create\_data(**int** CustomerID,String Name,String Email){

DB\_Connection obj\_DB\_Connection=**new** DB\_Connection();

Connection connection=obj\_DB\_Connection.get\_connection();

PreparedStatement ps=**null**;

**try** {

String query="insert into customers values (?,?,?)";

ps=connection.prepareStatement(query);

ps.setInt(1,CustomerID );

ps.setString(2, Name);

ps.setString(3, Email);

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

ps.executeUpdate();

} **catch** (Exception e) {

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

}

}

**public** **void** read\_data() {

DB\_Connection obj\_DB\_Connection = **new** DB\_Connection();

Connection connection = obj\_DB\_Connection.get\_connection();

PreparedStatement ps = **null**;

ResultSet rs = **null**;

**try** {

String query = "SELECT \* FROM customers ";

ps = connection.prepareStatement(query);

rs = ps.executeQuery();

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

System.***out***.println("CustomerID: " + rs.getInt("CustomerID"));

System.***out***.println("Name: " + rs.getString("Name"));

System.***out***.println("Email: " + rs.getString("Email"));

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

}

} **catch** (Exception e) {

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

}

}

**public** **void** where\_data(**int** ID) {

DB\_Connection obj\_DB\_Connection = **new** DB\_Connection();

Connection connection = obj\_DB\_Connection.get\_connection();

PreparedStatement ps = **null**;

ResultSet rs = **null**;

**try** {

String query = "SELECT \* FROM customers where CustomerID=?";

ps = connection.prepareStatement(query);

ps.setInt(1, ID);

rs = ps.executeQuery();

System.***out***.println("CustomerID: " + rs.getInt("CustomerID"));

System.***out***.println("Name: " + rs.getString("Name"));

System.***out***.println("Email: " + rs.getString("Email"));

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

} **catch** (Exception e) {

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

}

}

**public** **void** update\_data(String CustomerID, String new\_ID, String Name, String Email){

DB\_Connection obj\_DB\_Connection=**new** DB\_Connection();

Connection connection=obj\_DB\_Connection.get\_connection();

PreparedStatement ps=**null**;

**try** {

String query="update user set CustomerID=?,Name=?, Email=? where CustomerID=?";

ps=connection.prepareStatement (query);

ps.setString(1, new\_ID);

ps.setString(2, Name);

ps.setString(3, Email);

ps.setString(4, CustomerID);

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

ps.executeUpdate();

}

**catch** (Exception e) {

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

}

}

**public** **void** alter\_customers\_add\_column(String columnName, String columnType) {

DB\_Connection obj\_DB\_Connection = **new** DB\_Connection();

Connection connection = obj\_DB\_Connection.get\_connection();

PreparedStatement ps = **null**;

**try** {

String query = "ALTER TABLE customers ADD " + columnName + " " + columnType;

ps = connection.prepareStatement(query);

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

ps.executeUpdate();

System.***out***.println("Column '" + columnName + "' added to customers table.");

} **catch** (Exception e) {

System.***out***.println("Error altering table: " + e.getMessage());

}

}

**public** **void** delete\_data(**int** CustomerID){

DB\_Connection obj\_DB\_Connection=**new** DB\_Connection();

Connection connection=obj\_DB\_Connection.get\_connection();

PreparedStatement ps=**null**;

**try** {

String query="delete from customers where CustomerID=?";

ps=connection.prepareStatement(query);

ps.setInt(1, CustomerID);

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

ps.executeUpdate();

} **catch** (Exception e) {

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

}

}

}