

```
1 import java.sql.*;
2
3 public class StudentDB {
4
5     Connection con;
6
7     public StudentDB() {
8         try {
9             Class.forName( "oracle.jdbc.driver.OracleDriver" );
10        }
11        catch ( ClassNotFoundException e ) {
12            e.printStackTrace();
13        }
14
15        try {
16            con = DriverManager.getConnection( "jdbc:oracle:thin:@claros.cs.pur
17        }
18
19        catch ( SQLException e ){
20            e.printStackTrace();
21        }
22    }
23
24    public void getStudentsInDepartment( int department ) {
25        String query = "Select sname from Student where deptid=" + department;
26
27        try {
28            Statement stmt = con.createStatement();
29            ResultSet rs = stmt.executeQuery( query );
30
31            while ( rs.next() ) {
32                String name = rs.getString( "sname" );
33                System.out.println( name );
34            }
35            rs.close();
36            stmt.close();
37        }
38        catch ( SQLException e ) {
39            e.printStackTrace();
40        }
41    }
42
43    public void getStudentsInDepartmentPrepared ( int department ) {
44        String stmt = "Select sname from Student where deptid=?";
45
46        try {
47            PreparedStatement ps = con.prepareStatement( stmt );
48            ps.setInt( 1, department );
```

```
49
50     ResultSet rs = ps.executeQuery();
51
52     while ( rs.next() ) {
53         String sname = rs.getString( "sname" );
54
55         System.out.println( sname );
56     }
57     rs.close();
58     ps.close();
59 }
60 catch (SQLException e){}
61 }
62
63 public void getStudentsInClass( String cname ) {
64     String query = "Select snum from Enrolled where cname = '" + cname + '"";
65     try {
66         Statement stmt = con.createStatement();
67         ResultSet rs = stmt.executeQuery( query );
68
69         while ( rs.next() ) {
70             int snum = rs.getInt( "snum" );
71             String nestedQuery = "Select sname from Student where snum=" + snum;
72             Statement stmtNested = con.createStatement();
73             ResultSet rsNested = stmtNested.executeQuery( nestedQuery );
74
75             while ( rsNested.next() ) {
76                 String sname = rsNested.getString( "sname" );
77                 System.out.println( sname );
78             }
79             rsNested.close();
80             stmtNested.close();
81         }
82
83         rs.close();
84         stmt.close();
85     }
86     catch ( SQLException e ) {
87
88     }
89 }
90
91 public void enroll( int snum, String cname ) {
92     String update = "insert into Enrolled values(" + snum + ",'" + cname;
93     try {
94         Statement stmt = con.createStatement();
95         stmt.executeUpdate( update );
96         stmt.close();
```

```
97     }
98     catch ( SQLException e ) {}
99 }
100
101 public static void main( String [] args ) {
102     StudentDB sdb = new StudentDB();
103     sdb.getStudentsInDepartment(1);
104
105     System.out.println( "-----" );
106
107     //sdb.enroll( 418, "ENG400" );
108
109     sdb.getStudentsInDepartmentPrepared(1);
110 }
111
112 }
```