Automatic evaluation[-]

```
Proposed grade: 95.0 / 100
Result Description
[-]SOURCE CODE ANALYZER REPORT
Error Msg: Avoid if (x != y) ...; else ...;
Variable Name:
Priority: Medium
Class Name: SkeletonValidator
Error Msg: Possible unsafe assignment to a non-final static field in a constructor.
Variable Name: connection
Priority: Medium
Class Name: DBConnectionManager
Grading and Feedback
Collections and String - 10.0 / 10.0(Success)
Classes and Objects and JDBC API - 15.0 / 15.0(Success)
Operators, Control Statements and array - 10.0 / 10.0 (Success)
Classes and Objects and Collections - 15.0 / 15.0(Success)
File IO - 10.0 / 10.0(Success)
Utility - 10.0 / 10.0(Success)
DB connection - 10.0 / 10.0(Success)
Java Date API, Operators and Control Statements - 10.0 / 10.0(Success)
Comments and best practices/standards - 5.0 / 10.0(Partial)
Test Case Failed
UNOAdmission/database.properties
```

```
1 #IF NEEDED, YOU CAN MODIFY THIS PROPERTY FILE
2 #ENSURE YOU ARE NOT CHANGING THE NAME OF THE PROPERTY
3 #YOU CAN CHANGE THE VALUE OF THE PROPERTY
4 #LOAD THE DETAILS OF DRIVER CLASS, URL, USERNAME AND PASSWORD using this properties file only.
5 #Do not hard code the values
7 drivername=com.mysql.jdbc.Driver
8 url=jdbc:mysql://localhost:3306/uno admission
9 username=root
10 password=
```

UNOAdmission/inputFeed.txt

```
1 A001,S001,2020-01-15,EEE,2020-01-25,YES,YES,Approved
2 A002,S002,2020-02-04,MECH,2020-02-12,N0,YES,Approved
3 A003,S003,2020-04-23,CSE,2020-05-27,YES,NO,Approved
4 A004,S004,2020-07-16,IT,2020-07-24,NO,NO,Approved
5 A005,S005,2020-08-10,ECE,2020-08-11,YES,YES,Approved
6 A006,S006,2020-09-01,EEE,2020-09-10,YES,NO,Pending
7 A007,S007,2020-10-19,CIVIL,2020-10-28,N0,YES,Approved
```

UNOAdmission/src/com/cts/unoadm/dao/StudentAdmissionDAO.java

```
1 package com.cts.unoadm.dao;
  3 import java.util.ArrayList;
  4 import java.util.List;
  6 import com.cts.unoadm.exception.StudentAdmissionException;
  7 import com.cts.unoadm.vo.StudentAdmission;
  8 import com.cts.unoadm.util.*;
  9 import java.sql.*;
 10
 11 /*
 12 CREATE DATABASE CTSUNO
 14 CREATE TABLE UNO_ADMISSION(
 15 ADMISSION ID VARCHAR(50) PRIMARY KEY,
     STUDENT CODE VARCHAR(50)NOT NULL,
     DATE OF COUNSELING DATE NOT NULL,
     DEPARTMENT NAME VARCHAR(20).
      DATE OF ADMISSION DATE NOT NULL,
     PREFER COLLEGE HOSTEL VARCHAR(20),
     FIRST GRADUATE VARCHAR(20),
     MANAGER APPROVAL VARCHAR(10),
     ADMISSION FEE DOUBLE,
 24
     TUITION FEE DOUBLE,
      HOSTEL FEE DOUBLE,
      TOTAL COLLEGE FEE DOUBLE,
 27
      FINAL STATUS OF ADMISSION VARCHAR(20)
 28 );
 29 */
 30 public class StudentAdmissionDAO {
          public boolean addStudentAdmissionDetails(List<StudentAdmission> stdAdmissions) throws
StudentAdmissionException {
                    boolean recordsAdded = false;
 34
                    Connection con = DBConnectionManager.getInstance().getConnection();
 35
                    PreparedStatement ps = null;
 36
 37
                      //inserting values of list stdAdmissions into database
                      String query = "insert into
UNO_ADMISSION(ADMISSION_ID,STUDENT_CODE,DATE_OF_COUNSELING,DEPARTMENT_NAME,DATE_OF
ADMISSION, PREFER COLLEGE HOSTEL, FIRST GRADUATE, MANAGER APPROVAL, ADMISSION FEE, TUITI
ON FEE, HOSTEL FEE, TOTAL COLLEGE FEE, FINAL STATUS OF ADMISSION)
values(?,?,?,?,?,?,?,?,?,?,?)";
                      for(StudentAdmission e:stdAdmissions) {
 40
                        ps = con.prepareStatement(query);
 41
                        ps.setString(1,e.getAdmissionId());
                         ps.setString(2,e.getStudentCode());
 42
                         ps.setDate(3,ApplicationUtil.convertUtilToSqlDate(e.getDateOfCounseling()));
 43
 44
                         ps.setString(4,e.getDepartmentName());
 45
                         ps.setDate(5,ApplicationUtil.convertUtilToSqlDate(e.getDateOfAdmission()));
                         ps.setString(6,e.getPreferCollegeHostel());
 46
                         ps.setString(7,e.getFirstGraduate());
 47
 48
                         ps.setString(8,e.getManagerApproval());
                         ps.setDouble(9,e.getAdmissionFee());
 49
                         ps.setDouble(10,e.getTuitionFee());
 50
 51
                         ps.setDouble(11,e.getHostelFee());
                         ps.setDouble(12.e.getTotalCollegeFee());
 52
 53
                         ps.setString(13,e.getFinalStatusOfAdmission());
 54
                        int i = ps.executeUpdate();
```

```
55
                          if(i>0)
56
57
                            recordsAdded = true;
58
                          }
59
                          else
60
                            recordsAdded = false:
61
62
                          }
63
                       }
64
65
66
67
                     catch(SQLException e)
68
69
                       try{
70
                       con.rollback();
71
                       }catch(Exception e1){
72
                          e.printStackTrace();
73
74
75
                     catch(Exception e) {
76
                       e.printStackTrace();
77
                       //throw new StudentAdmissionException("Database Value Insertion Failed", e.getCause());
78
79
                     finally{
80
                       try{
                        ps.close();
81
82
                       con.close();
                       }catch(Exception e) {
83
84
                       e.printStackTrace();
                       //throw new StudentAdmissionException("Database Value Insertion Failed", e.getCause());
85
86
87
                     //code here
88
89
90
                     return recordsAdded;
91
         }
92
         public List<StudentAdmission> getAllStudentAdmissionDetails() throws StudentAdmissionException {
93
95
                     List<StudentAdmission> stdAdmissions = new ArrayList<StudentAdmission>();
96
97
                     //code here
                     //Retrieval of all records from database
98
                     String query = "select * from UNO ADMISSION";
99
                     try(Connection con = DBConnectionManager.getInstance().getConnection();
100
                     Statement st = con.createStatement();
101
                     ResultSet rs = st.executeQuery(query);){
102
103
                       while(rs.next())
104
                          //storing retrieved records in object
105
                          StudentAdmission obj = new StudentAdmission();
106
107
                          obj.setAdmissionId(rs.getString(1));
108
                       obj.setStudentCode(rs.getString(2));
                       obj.setDateOfCounseling(new java.util.Date(rs.getDate(3).getTime()));
109
                       obj.setDepartmentName(rs.getString(4));
110
                       obj.setDateOfAdmission(new java.util.Date(rs.getDate(5).getTime()));
111
                       obj.setPreferCollegeHostel(rs.getString(6));
112
                       obj.setFirstGraduate(rs.getString(7));
113
                       obj.setManagerApproval(rs.getString(8));
114
                       obj.setAdmissionFee(rs.getDouble(9));
115
116
                       obj.setTuitionFee(rs.getDouble(10));
```

```
117
                        obj.setHostelFee(rs.getDouble(11));
118
                        obj.setTotalCollegeFee(rs.getDouble(12));
                        obj.setFinalStatusOfAdmission(rs.getString(13));
119
120
                       //adding StudentAdmission object into arraylist
121
                        stdAdmissions.add(obj);
122
                       }
123
124
                     }catch(Exception e)
125
126
                        e.printStackTrace();
                       //throw new StudentAdmissionException("Database Value Retrieval Failed", e.getCause());
127
128
129
                     return stdAdmissions;
130
131
         }
132 }
```

UNOAdmission/src/com/cts/unoadm/exception/StudentAdmissionException.ja va

```
1 package com.cts.unoadm.exception;
3 public class StudentAdmissionException extends Exception {
5
        private static final long serialVersionUID = -1105431869622052445L;
6
7
8
         * @param message
9
         * @param cause
10
11
        public StudentAdmissionException(String message, Throwable cause) {
12
                   super(message, cause);
13
14}
```

UNOAdmission/src/com/cts/unoadm/main/MainApp.java

```
1 package com.cts.unoadm.main;
  3 import com.cts.unoadm.skeletonvalidator.SkeletonValidator;
  4 import com.cts.unoadm.service.*;
  5 import com.cts.unoadm.util.*;
  6 public final class MainApp {
      private MainApp(){}
  8
           public static void main(String[] args) {
  9
                      //Don't delete this code
 10
                      //Skeletonvalidaton starts
 11
                      new SkeletonValidator();
                      //Skeletonvalidation ends
  12
 13
                      //Write your code here..
 15
                      try{
 16
                      StudentAdmissionService service = new StudentAdmissionService();
                      System.out.println(service.addStudentAdmissionDetails("inputFeed.txt"));
 17
 18
                      System.out.println(service.searchStudentAdmission("A005"));
 19
                      }catch(Exception e){e.printStackTrace();}
 20
                      //List<StudentAdmission> studentAdmissionList =
service.buildStudentAdmissionsList(ApplicationUtil.readFile("inputFeed.txt"));
 21
                      /*for(StudentAdmission e:studentAdmissionList)
 22
 23
                         System.out.println(e);
```

```
24 }*/
25 }
26
27}
```

UNOAdmission/src/com/cts/unoadm/service/StudentAdmissionService.java

```
1 package com.cts.unoadm.service;
  3 import java.util.ArrayList;
  4 import java.util.List;
  6 import com.cts.unoadm.exception.StudentAdmissionException;
  7 import com.cts.unoadm.vo.StudentAdmission;
  8 import com.cts.unoadm.util.*;
  9 import com.cts.unoadm.dao.*;
 10 public class StudentAdmissionService {
 11
 12
           * @param empReimburseRecords
 13
           * @return List<StudentAdmission>
 14
 15
 16
           public static List<StudentAdmission> buildStudentAdmissionsList(List<String> studentAdmissionRecords)
 17
                      List<StudentAdmission> studentAdmissionList = new ArrayList<StudentAdmission>();
 18
 19
                      //Code here
 20
                      //storing each line into List of StudentAdmission objects
 21
                      for(String e:studentAdmissionRecords) {
 22
                        String res[] = e.split(",");
                        String admissionId = res[0];
 23
                        String studentCode = res[1];
 25
                        String dateOfCounseling = res[2];
 26
                        String departmentName = res[3];
 27
                        String dateOfAdmission = res[4];
 28
                        String preferCollegeHostel = res[5];
 29
                        String firstGraduate = res[6];
 30
                        String managerApproval = res[7];
                        StudentAdmission obj = new StudentAdmission();
 31
 32
                        obj.setAdmissionId(admissionId);
 33
                        obj.setStudentCode(studentCode);
 34
                        //converting String to java.uti.Date
 35
                        obj.setDateOfCounseling(ApplicationUtil.convertStringToDate(dateOfCounseling));
                        obi.setDepartmentName(departmentName);
 36
 37
                        //converting String to java.uti.Date
                        obj.setDateOfAdmission(ApplicationUtil.convertStringToDate(dateOfAdmission));
 39
                        obj.setPreferCollegeHostel(preferCollegeHostel);
                        obj.setFirstGraduate(firstGraduate);
 40
 41
                        obj.setManagerApproval(managerApproval);
                        double[] studentAdmissionCosts =
calculateTotalCollegeFee(preferCollegeHostel,firstGraduate,departmentName);
 43
                        obj.setAdmissionFee(studentAdmissionCosts[0]);
                        obj.setTuitionFee(studentAdmissionCosts[1]);
 44
 45
                        obj.setHostelFee(studentAdmissionCosts[2]);
 46
                        obj.setTotalCollegeFee(studentAdmissionCosts[3]);
                        obj.setFinalStatusOfAdmission("AdmissionSuccessfull");
 47
 48
 49
 50
                        studentAdmissionList.add(obj);
 51
 52
```

```
53
                      return studentAdmissionList;
  54
          }
  55
  56
  57
           public boolean addStudentAdmissionDetails(String inputFeed) throws StudentAdmissionException {
  58
  59
                      //Code here
                      List<StudentAdmission> studentAdmissionList =
  60
Student Admission Service. build Student Admissions List (Application Util. read File (input Feed)); \\
                      StudentAdmissionDAO stdDao = new StudentAdmissionDAO();
 61
                      return stdDao.addStudentAdmissionDetails(studentAdmissionList);
 62
 63
          }
 64
           public static double[] calculateTotalCollegeFee(String preferCollegeHostel, String firstGraduate, String
 65
departmentName) {
  66
                      double[] studentAdmissionCosts = new double[4];
 67
 68
                      //Code here..
 69
                      if("YES".equals(preferCollegeHostel))
  70
  71
                           studentAdmissionCosts[2]=75000;
  72
  73
                      else{
  74
                           studentAdmissionCosts[2]=0;
  75
  76
                      if("EEE".equals(departmentName)) {
  77
                           studentAdmissionCosts[0]=30000;
  78
  79
                           studentAdmissionCosts[1]=45000;
  80
  81
                      else if("ECE".equals(departmentName)) {
  82
                           studentAdmissionCosts[0]=30000;
  83
  84
                           studentAdmissionCosts[1]=50000;
  85
                      else if("CSE".equals(departmentName)) {
  86
  87
                        studentAdmissionCosts[0]=30000;
  88
                           studentAdmissionCosts[1]=45000;
  89
  90
  91
                      else if("MECH".equals(departmentName)) {
  92
                       studentAdmissionCosts[0]=30000;
  93
                           studentAdmissionCosts[1]=55000;
  94
  95
  96
                      else if("CIVIL".equals(departmentName)) {
 97
                           studentAdmissionCosts[0]=30000;
 98
                           studentAdmissionCosts[1]=50000;
 99
 100
                      else if("IT".equals(departmentName)) {
 101
                           studentAdmissionCosts[0]=30000;
 102
                           studentAdmissionCosts[1]=45000;
 103
 104
 105
 106
                      //for first graduate discount is there
 107
                      if("YES".equals(firstGraduate)) {
 108
studentAdmissionCosts[3]=studentAdmissionCosts[0]+studentAdmissionCosts[1]+studentAdmissionCosts[2]-20000;
 109
 110
                      else{
```

```
111
studentAdmissionCosts[3]=studentAdmissionCosts[0]+studentAdmissionCosts[1]+studentAdmissionCosts[2];
 113
                      return studentAdmissionCosts;
 114
          }
 115
           public boolean searchStudentAdmission(String admissionId) throws StudentAdmissionException {
 116
                      boolean status = false;
 117
 118
 119
                      //Code here..
                      StudentAdmissionDAO stdDao = new StudentAdmissionDAO();
 120
 121
                      List<StudentAdmission> stdAdmissions = stdDao.getAllStudentAdmissionDetails();
 122
                      for(StudentAdmission e:stdAdmissions) {
                        if(e.getAdmissionId().equals(admissionId)) {
 123
                          status = true:
 124
 125
                           System.out.println(e);
 126
                          break;
 127
 128
                      }
 129
                      return status;
 130
          }
 131 }
 132
```

UNOAdmission/src/com/cts/unoadm/skeletonvalidator/SkeletonValidator.java

```
1 package com.cts.unoadm.skeletonvalidator;
  3 import java.lang.reflect.Array;
  4 import java.lang.reflect.Method;
  5 import java.util.logging.Level;
  6 import java.util.logging.Logger;
  8 /**
  9 * @author t-aarti3
  10 *
           This class is used to verify if the Code Skeleton is intact and not
 11 *
           modified by participants thereby ensuring smooth auto evaluation
  12 * */
  13
  14 public class SkeletonValidator {
       private static final Logger LOG = Logger.getLogger("SkeletonValidator");
           public SkeletonValidator() {
  16
  17
                      validateClassName("com.cts.unoadm.util.DBConnectionManager");
  18
                      validateClassName("com.cts.unoadm.util.ApplicationUtil");
                      validateClassName("com.cts.unoadm.service.StudentAdmissionService");
  19
  20
                      validateClassName("com.cts.unoadm.dao.StudentAdmissionDAO");
  21
                      validateClassName("com.cts.unoadm.vo.StudentAdmission"):
  22
                      validateClassName("com.cts.unoadm.exception.StudentAdmissionException");
  23
  24
  25
                      validateMethodSignature(
"addStudentAdmissionDetails:boolean,getAllStudentAdmissionDetails:List",
                                            "com.cts.unoadm.dao.StudentAdmissionDAO");
                      validateMethodSignature(
 28
"buildStudentAdmissionsList:List,addStudentAdmissionDetails:boolean,calculateTotalCollegeFee:double[],searchStud
entAdmission:boolean",
 30
                                            "com.cts.unoadm.service.StudentAdmissionService");
 31
                      validateMethodSignature(
"readFile:List,convertUtilToSqlDate:Date,convertStringToDate:Date,checkIfValidAdmission:boolean",
```

```
33
                                             "com.cts.unoadm.util.ApplicationUtil");
  34
                      validateMethodSignature(
  35
                                             "getConnection:Connection,getInstance:DBConnectionManager",
  36
                                             "com.cts.unoadm.util.DBConnectionManager");
  37
  38
  39
 40
           }
 41
 42
           protected final boolean validateClassName(String className) {
 43
 44
                      boolean iscorrect = false;
  45
                      try {
  46
                                 Class.forName(className);
                                 iscorrect = true:
  47
 48
                                 LOG.info("Class Name " + className + " is correct");
 49
 50
                      } catch (ClassNotFoundException e) {
                                 LOG.log(Level.SEVERE, "You have changed either the " + "class name/package.
 51
Use the correct package "
                                                        + "and class name as provided in the skeleton");
 52
 53
 54
                      } catch (Exception e) {
 55
                                 LOG.log(Level.SEVERE,
 56
                                                        "There is an error in validating the " + "Class Name. Please
manually verify that the "
                                                                              + "Class name is same as skeleton
before uploading");
 58
                      }
  59
                      return iscorrect;
 60
           }
 61
           protected final void validateMethodSignature(String methodWithExcptn, String className) {
 62
                      Class cls = null;
 63
  64
                      try {
  65
  66
                                 String[] actualmethods = methodWithExcptn.split(",");
                                 boolean errorFlag = false;
  67
                                 String[] methodSignature;
  68
                                 String methodName = null;
  69
  70
                                 String returnType = null;
  71
                                 for (String singleMethod : actualmethods) {
  72
                                             boolean foundMethod = false;
  73
  74
                                            methodSignature = singleMethod.split(":");
  75
  76
                                             methodName = methodSignature[0];
                                            returnType = methodSignature[1];
  77
  78
                                            cls = Class.forName(className);
  79
                                             Method[] methods = cls.getMethods();
                                             for (Method findMethod: methods) {
  80
                                                        if (methodName.equals(findMethod.getName())) {
  81
                                                                   foundMethod = true;
 82
(!(findMethod.getReturnType().getSimpleName().equals(returnType))) {
                                                                              errorFlag = true;
 85
                                                                              LOG.log(Level.SEVERE, "You have
changed the " + "return type in " + methodName
                                                                                                     + " method.
Please stick to the " + "skeleton provided");
 87
 88
                                                                   } else {
```

```
LOG.info("Method signature of " +
methodName + " is valid");
                                                                     }
 91
 92
                                                         }
 93
                                              if (!foundMethod) {
 94
 95
                                                         errorFlag = true;
 96
                                                         LOG.log(Level.SEVERE, " Unable to find the given public
method " + methodName
                                                                                + ". Do not change the " + "given
public method name. " + "Verify it with the skeleton");
 99
 100
                                  if (!errorFlag) {
 101
 102
                                              LOG.info("Method signature is valid");
 103
 104
 105
                      } catch (Exception e) {
 106
                                  LOG.log(Level.SEVERE,
 107
                                                         "There is an error in validating the " + "method structure.
Please manually verify that the "
 108
                                                                                + "Method signature is same as the
skeleton before uploading");
 109
 110
           }
 111
 112 }
```

UNOAdmission/src/com/cts/unoadm/util/ApplicationUtil.java

```
1 package com.cts.unoadm.util;
4 import java.util.*;
5 import java.io.*;
6 import java.text.*;
8 import com.cts.unoadm.exception.StudentAdmissionException;
10 public final class ApplicationUtil {
11
12
13
          * @param fileName
          * @return List<String>
15
          * @throws StudentAdmissionException
16
17
          private ApplicationUtil(){}
18
19
         public static List<String> readFile(String fileName) throws StudentAdmissionException {
20
                     List<String> studentAdmissionList = new ArrayList<String>();
21
                      //Code here..
                     FileReader fr = null;
22
23
                     BufferedReader br = null;
24
                     try{
                       fr=new FileReader(fileName);
25
26
                       br = new BufferedReader(fr);
27
                       String line = null;
28
                       while((line=br.readLine())!=null)
29
```

```
30
                           String []res = line.split(",");
 31
                           String managerApproval = res[7];
                           Date dtOfCounseling = convertStringToDate(res[2]);
  32
  33
                           Date dtOfAdmission = convertStringToDate(res[4]);
                           if(checkIfValidAdmission(dtOfCounseling,dtOfAdmission,managerApproval))
  35
  36
                              studentAdmissionList.add(line);
  37
                           }
  38
  39
                      }catch(Exception e){e.printStackTrace();}
 40
 41
 42
                      return studentAdmissionList;
 43
           }
 44
 45
 46
            * @param util
 47
                    Date
            * @return sql Date
 48
 49
 50
           public static java.sql.Date convertUtilToSqlDate(java.util.Date uDate) {
 51
 52
                      java.sql.Date sDate = new java.sql.Date(uDate.getTime());
 53
  54
                      //Code here..
  55
  56
  57
                      return sDate;
  58
           }
  59
 60
            * @param inDate
 61
           * @return Date
 62
 63
 64
           public static Date convertStringToDate(String inDate) {
 65
 66
                      //Code here..
 67
 68
                         SimpleDateFormat format = new SimpleDateFormat("yyyy-MM-dd",Locale.ENGLISH);
  69
                         return format.parse(inDate);
  70
                      }catch(Exception e){e.printStackTrace();
  71
                         return null;
  72
  73
           }
  74
  75
           public static boolean checklfValidAdmission(Date dtOfCounseling, Date dtOfAdmission, String manager) {
  76
                      boolean admissionValidity = false;
  77
  78
                      //Code here..
  79
                      if("Approved".equals(manager) && ((dtOfAdmission.getTime() -
dtOfCounseling.getTime())/(1000*60*60*24))%365<= 10)
 80
 81
                         admissionValidity = true;
 82
  83
 84
                      return admissionValidity;
 85
           }
 86 }
```

UNOAdmission/src/com/cts/unoadm/util/DBConnectionManager.java

```
1 /**
  2 * Don't change this code
  3 */
  4 package com.cts.unoadm.util;
  5 import java.io.FileInputStream;
  6 import java.io.FileNotFoundException;
  7 import java.io.IOException;
  8 import java.sql.Connection;
  9 import java.sql.DriverManager;
  10 import java.sql.SQLException;
  11 import java.util.Properties;
  13 import com.cts.unoadm.exception.StudentAdmissionException;
  15
  16 public final class DBConnectionManager {
           public static final String PROPERTY_FILE = "database.properties";
  18
           public static final String DRIVER = "drivername";
  19
  20
           public static final String URL = "url";
  21
           public static final String USER_NAME = "username";
           public static final String PASSWORD = "password";
  22
 23
 24
           private static Connection connection = null;
 25
           private static Properties props = null;
  26
       private static DBConnectionManager instance = null;
  27
  28
           * @throws StudentAdmissionException
  29
  30
           private DBConnectionManager() throws StudentAdmissionException {
  31
                      loadProperties();
  32
                      try {
 33
                                 Class.forName(props.getProperty(DRIVER));
                                 connection = DriverManager.getConnection(props.getProperty(URL),
props.getProperty(USER_NAME),
                                                        props.getProperty(PASSWORD));
 35
  36
                      } catch (ClassNotFoundException ex) {
 37
                        ex.printStackTrace();
                                 //throw new StudentAdmissionException("Could not find Driver class ",
 38
ex.getCause());
  39
                      } catch (SQLException e) {
 40
                        e.printStackTrace();
 41
                                 //throw new StudentAdmissionException("Database Connection Creation Failed",
e.getCause());
 42
 43
                      catch(Exception e)
 44
 45
                        e.printStackTrace();
                        //throw new StudentAdmissionException("Database Connection Creation Failed",
 46
e.getCause());
 47
                      }
 48
           }
  49
  50
  51
           * @return Connection
  52
           public Connection getConnection() {
  53
  54
                      return connection;
  55
           }
  56
  57
  58
           * @return DBConnectionManager
```

```
59
            * @throws StudentAdmissionException
 60
 61
           public static DBConnectionManager getInstance() throws StudentAdmissionException {
 62
 63
                      // Code here
  64
                      instance = new DBConnectionManager();
 65
 66
 67
                      return instance;
 68
           }
  69
  70
  71
            * @throws StudentAdmissionException
  72
           private void loadProperties() throws StudentAdmissionException {
  73
  74
                      FileInputStream inputStream = null;
  75
                      try {
  76
                                 inputStream = new FileInputStream(PROPERTY_FILE);
  77
                                 props = new Properties();
  78
                                 props.load(inputStream);
  79
                      } catch (FileNotFoundException e) {
 80
                        e.printStackTrace();
                                 //throw new StudentAdmissionException("Database Property File Not Found",
 81
e.getCause());
 82
                      } catch (IOException e) {
 83
                        e.printStackTrace();
                                 //throw new StudentAdmissionException("Exception during property file I/O",
 84
e.getCause());
 85
                      } finally {
                                 if (inputStream != null) {
 87
                                             try {
 88
                                                        inputStream.close();
 89
                                            } catch (IOException e) {
 90
                                               e.printStackTrace();
 91
                                                        //throw new StudentAdmissionException("Exception during
property file I/O", e.getCause());
 92
                                            }
  93
                                 }
 94
                      }
  95
           }
  96 }
 97
```

UNOAdmission/src/com/cts/unoadm/vo/StudentAdmission.java

```
1 /*
2 * Don't change this code
4 package com.cts.unoadm.vo;
6 import java.util.Date;
8 public class StudentAdmission {
9
         String admissionId;
10
         String studentCode;
11
         Date dateOfCounseling;
         String departmentName;
12
13
         Date dateOfAdmission;
14
         String preferCollegeHostel:
15
         String firstGraduate;
16
         String managerApproval;
```

```
17
           double admissionFee:
  18
           double tuitionFee:
  19
           double hostelFee:
  20
           double totalCollegeFee:
  21
           String finalStatusOfAdmission;
  22
  23
           public StudentAdmission() {
  24
                      super();
  25
  26
  27
           public StudentAdmission(String admissionId, String studentCode, Date dateOfCounseling, String
departmentName,
  28
                                 Date dateOfAdmission, String preferCollegeHostel, String firstGraduate, String
managerApproval,
                                 double admissionFee, double tuitionFee, double hostelFee, double
 29
totalCollegeFee,
  30
                                 String finalStatusOfAdmission) {
  31
                      super();
  32
                      this.admissionId = admissionId;
  33
                      this.studentCode = studentCode;
                      this.dateOfCounseling = dateOfCounseling;
  34
  35
                      this.departmentName = departmentName;
  36
                      this.dateOfAdmission = dateOfAdmission;
 37
                      this.preferCollegeHostel = preferCollegeHostel;
  38
                      this.firstGraduate = firstGraduate;
                      this.managerApproval = managerApproval;
 39
                      this.admissionFee = admissionFee;
 40
                      this.tuitionFee = tuitionFee:
 41
 42
                      this.hostelFee = hostelFee;
                      this.totalCollegeFee = totalCollegeFee;
 43
                      this.finalStatusOfAdmission = finalStatusOfAdmission;
 44
 45
           }
 46
 47
           public String getAdmissionId() {
  48
                      return admissionId;
  49
  50
  51
           public void setAdmissionId(String admissionId) {
                      this.admissionId = admissionId;
  52
  53
  54
  55
           public String getStudentCode() {
  56
                      return studentCode;
 57
  58
  59
           public void setStudentCode(String studentCode) {
 60
                      this.studentCode = studentCode;
 61
 62
 63
           public Date getDateOfCounseling() {
                      return dateOfCounseling;
 64
 65
  66
  67
           public void setDateOfCounseling(Date dateOfCounseling) {
  68
                      this.dateOfCounseling = dateOfCounseling;
  69
  70
  71
           public String getDepartmentName() {
  72
                      return departmentName;
  73
  74
  75
           public void setDepartmentName(String departmentName) {
```

```
76
                     this.departmentName = departmentName;
77
78
79
         public Date getDateOfAdmission() {
80
                     return dateOfAdmission;
81
82
83
         public void setDateOfAdmission(Date dateOfAdmission) {
84
                     this.dateOfAdmission = dateOfAdmission;
85
86
87
         public String getPreferCollegeHostel() {
88
                     return preferCollegeHostel;
89
90
91
         public void setPreferCollegeHostel(String preferCollegeHostel) {
92
                     this.preferCollegeHostel = preferCollegeHostel;
93
94
95
         public String getFirstGraduate() {
96
                     return firstGraduate;
97
98
99
         public void setFirstGraduate(String firstGraduate) {
100
                     this.firstGraduate = firstGraduate;
101
102
103
         public String getManagerApproval() {
104
                     return managerApproval;
105
106
107
         public void setManagerApproval(String managerApproval) {
108
                     this.managerApproval = managerApproval;
109
110
         public double getAdmissionFee() {
111
112
                     return admissionFee;
113
114
115
         public void setAdmissionFee(double admissionFee) {
116
                     this.admissionFee = admissionFee;
117
118
119
         public double getTuitionFee() {
120
                     return tuitionFee;
121
122
123
          public void setTuitionFee(double tuitionFee) {
124
                     this.tuitionFee = tuitionFee;
125
126
127
         public double getHostelFee() {
128
                     return hostelFee;
129
130
         public void setHostelFee(double hostelFee) {
131
                     this.hostelFee = hostelFee;
132
133
134
135
         public double getTotalCollegeFee() {
136
                     return totalCollegeFee;
137
```

```
138
 139
           public void setTotalCollegeFee(double totalCollegeFee) {
 140
                      this.totalCollegeFee = totalCollegeFee;
 141
 142
           public String getFinalStatusOfAdmission() {
 143
 144
                      return finalStatusOfAdmission;
 145
 146
           public void setFinalStatusOfAdmission(String finalStatusOfAdmission) {
 147
 148
                      this.finalStatusOfAdmission = finalStatusOfAdmission;
 149
 150
 151
           @Override
          public String toString() {
 152
 153
                      return "Student Admission Details: [admissionId=" + admissionId + ", studentCode=" +
studentCode + ", dateOfCounseling="
                                            + dateOfCounseling + ", departmentName=" + departmentName + ",
dateOfAdmission=" + dateOfAdmission + ", preferCollegeHostel="
                                            + preferCollegeHostel + ", firstGraduate=" + firstGraduate + ",
managerApproval=" + managerApproval
                                            + ", admissionFee=" + admissionFee + ", tuitionFee=" + tuitionFee + ",
hostelFee=" + hostelFee + ", totalCollegeFee=" + totalCollegeFee
                                            + ", finalStatusOfAdmission=" + finalStatusOfAdmission + "]";
 157
 158
 159
 160 }
 161
```