//Coded by Isaak Weidman and Brennan Mulligan

package Sample;  
  
import java.util.\*;  
  
public class Main {  
 public static void main(String[] args) {  
  
 Scanner reader = new Scanner(System.*in*);  
 String userInput;  
 int counter = 0;  
  
 List<Idea> ideaList = new ArrayList<>();  
 List<Idea> goodIdeas = new ArrayList<>();  
 List<Idea> badIdeas = new ArrayList<>();  
  
 boolean isFinished = false;  
  
// if(isFinished == false) {  
// System.out.println("If");  
//  
// System.out.print("Please enter the name of your idea:\n>");  
// userInput = reader.nextLine();  
//  
// ideaList.add(new Idea(userInput));  
//  
// enterValues(ideaList.get(counter));  
//  
// counter++;  
//  
// System.out.print("Do you have another idea? [yes or no]\n>");  
// userInput = reader.nextLine();  
//  
// isFinished = booleanInput(userInput);  
// }  
  
 while(!isFinished) {  
  
 System.*out*.println("while");  
  
 System.*out*.print("Please enter the name of your idea:\n>");  
 userInput = reader.nextLine();  
  
 ideaList.add(new Idea(userInput));  
  
 *enterValues*(ideaList.get(counter));  
  
 counter++;  
  
 System.*out*.print("Do you have another idea? [yes or no]\n>");  
 userInput = reader.nextLine();  
  
 isFinished = *booleanInput*(userInput);  
 }  
  
 for(Idea i: ideaList) {  
 *enterValues*(i);  
  
 if(i.isIdeaWorthy() == true)  
 goodIdeas.add(i);  
 else  
 badIdeas.add(i);  
 }  
  
 System.*out*.println("Bad ideas: " + badIdeas);  
 System.*out*.println("Good ideas : " + goodIdeas);  
 }  
  
  
  
 public static void enterValues(Idea i) {  
 Scanner reader = new Scanner(System.*in*);  
 String userInput;  
  
 System.*out*.print("How many attributes does your idea have?\n>");  
 userInput = reader.nextLine();  
  
 i.setAttributes(Integer.*parseInt*(userInput));  
  
 System.*out*.print("Has the teacher approved of your project idea? [yes or no]\n>");  
 userInput = reader.nextLine();  
  
 i.setApproval(*booleanInput*(userInput));  
  
 System.*out*.print("Does your idea contain objects? [yes or no]\n>");  
 userInput = reader.nextLine();  
  
 i.setObjects(*booleanInput*(userInput));  
  
 System.*out*.print("Is your idea cool? [yes or no]\n>");  
 userInput = reader.nextLine();  
  
 i.setCoolness(*booleanInput*(userInput));  
  
 System.*out*.print("Is your idea unique? [yes or no]\n>");  
 userInput = reader.nextLine();  
  
 i.setUniqueness(*booleanInput*(userInput));  
 }  
  
  
  
 public static boolean booleanInput(String s) {  
  
 boolean result = false;  
  
 if(s.equalsIgnoreCase("yes"))  
 result = true;  
 else if(s.equalsIgnoreCase("no"))  
 result = false;  
  
 return result;  
 }  
}  
  
/\*  
The Program does NOT work as intended for an unknown reason. For some reason, in the while loop in the main, the first  
iteration runs perfectly as it is supposed to. After the first iteration, however, the while loop ignores all the code  
except the method call for enterValues(). There is an if statement before the loop with the exact same code as the  
while loop in it, and when it is not commented out, the program behaves exactly the same as it did without it. We do not  
know how to fix this issue.  
  
//Actual Output=========================================================================================================  
  
Please enter the name of your idea:  
>Test  
How many attributes does your idea have?  
>5  
Has the teacher approved of your project idea? [yes or no]  
>yes  
Does your idea contain objects? [yes or no]  
>yes  
Is your idea cool? [yes or no]  
>yes  
Is your idea unique? [yes or no]  
>yes  
Do you have another idea? [yes or no]  
>yes  
How many attributes does your idea have?  
>5  
Has the teacher approved of your project idea? [yes or no]  
>yes  
Does your idea contain objects? [yes or no]  
>yes  
Is your idea cool? [yes or no]  
>yes  
Is your idea unique? [yes or no]  
>yes  
Bad ideas: []  
Good ideas : [Test]  
  
//IntendedOutput=================================================================================================  
  
Please enter the name of your idea:  
>Test  
How many attributes does your idea have?  
>5  
has the teacher approved of your project idea? [yes or no]  
>yes  
Does your idea contain Objects? [yes or no]  
>yes  
Is your idea cool? [yes or no]  
>yes  
Is your idea unique? [yes or no]  
>yes  
Do you have another idea? [yes or no]  
>yes  
Please enter the name of your idea:  
>Test2  
How many attributes does your idea have?  
>2  
has the teacher approved of your project idea? [yes or no]  
>no  
Does your idea contain Objects? [yes or no]  
>no  
Is your idea cool? [yes or no]  
>no  
Is your idea unique? [yes or no]  
>no  
Do you have another idea? [yes or no]  
>no  
Bad ideas: [Test2]  
Good ideas: [Test]  
 \*/

package Sample;  
  
public class Idea {  
  
 private String name;  
  
 private int numAttributes;  
 private boolean teacherApproved;  
 private boolean containsObjects;  
 private boolean isCool;  
 private boolean isUnique;  
  
 public Idea(String n, int a, boolean t, boolean c, boolean is, boolean iu) {  
 name = n;  
 numAttributes = a;  
 teacherApproved = t;  
 containsObjects = c;  
 isCool = is;  
 isUnique = iu;  
 }  
  
 public Idea(String n) {  
 name = n;  
 numAttributes = 0;  
 teacherApproved = false;  
 containsObjects = false;  
 isCool = false;  
 isUnique = false;  
 }  
  
  
 //Set methods  
 public void setAttributes (int a)  
 {  
 numAttributes = a;  
 }  
 public void setApproval (boolean t)  
 {  
 teacherApproved = t;  
 }  
 public void setObjects (boolean c)  
 {  
 containsObjects = c;  
 }  
 public void setCoolness (boolean i)  
 {  
 isCool = i;  
 }  
 public void setUniqueness (boolean i) {  
 isUnique = i;  
 }  
 public void setName (String n) {  
 name = n;  
 }  
  
  
 //Get methods  
 public int getAttributes ()  
 {  
 return numAttributes;  
 }  
 public boolean getApproval ()  
 {  
 return teacherApproved;  
 }  
 public boolean getObjects () { return containsObjects; }  
 public boolean getCoolness ()  
 {  
 return isCool;  
 }  
 public boolean getUniqueness () {  
 return isUnique;  
 }  
 public String getName() {  
 return name;  
 }  
  
  
 public String toString() {  
 String str = getName();  
  
 return str;  
 }  
  
  
 public boolean isIdeaWorthy () {  
  
 if (numAttributes < 5)  
 return false;  
  
 if (!teacherApproved)  
 return false;  
  
 if (!containsObjects)  
 return false;  
  
 if (!isCool)  
 return false;  
  
 if (!isUnique)  
 return false;  
 else  
 return true;  
 }  
}