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**Sorting Lab**

Student [] studentArray = new Student [50];

int numStudents;

private void FileReadActionPerformed(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

int count = 0;

String studentname = "", gender = "", oneline;

int age = 0, height = 0, numsales = 0;

try

{

// open the file and set up the scanner

BufferedReader in = new BufferedReader(new

FileReader("src/Resources/studentFile.txt"));

Scanner sc = new Scanner(in);

// use comma as a delimiter

sc.useDelimiter(",|(\\n|\\r)+");

while (sc.hasNext())

{

if (sc.hasNext()) {

studentname = sc.next();

//System.out.println("item 1 " + person);

}

if (sc.hasNext()) {

gender = sc.next();

//System.out.println("item 2 " + candy);

}

if (sc.hasNextInt()) {

age = sc.nextInt();

//System.out.println("item 3 " + numcandy);

}

if (sc.hasNext())

{

height = sc.nextInt();

}

// calls the constructor

Student info = new Student(studentname, gender, age, height);

studentArray [count] = info;

count++;

}

numStudents = count;

sc.close();

jLabel1.setText("Done reading file");

}

catch (Exception e)

{

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

}

}

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

String message = "<html>Student Info: <p>";

// variable for each candy sale item

Student oneStudent;

// loop over all defined items in the sales array

// adding each item to the message string

for (int i = 0; i < numStudents; i++) {

oneStudent = studentArray[i];

message = message + "<p>" + oneStudent.toString();

}

// display the resulting message string

jLabel2.setText(message);

}

private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

int tallest = 0;

String name= "";

for (int i = 0; i < numStudents; i++)

{

if (studentArray[i].getHeight() > tallest)

{

tallest = studentArray[i].getHeight();

name = studentArray[i].getStudentName();

}

if (studentArray[i].getHeight() == tallest)

{

if (name.equals(studentArray[i].getStudentName()))

{

}

else

{

name = name + " " + studentArray[i].getStudentName();

}

}

}

jLabel3.setText(name);

}

private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

String search = jTextField1.getText();

String display = "<html>Student Info: <p>";

for (int i = 0; i < numStudents; i++)

{

if (studentArray[i].getStudentName().startsWith(search))

{

display = display + "<p>" + studentArray[i].toString();

}

}

jLabel5.setText(display);

}

private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

int n = numStudents; // n is the length of the array

for (int i = 0; i < (n-1); i++) // if array has n elements, number of passes is n-1

{

for (int j = 0; j < (n - (i+1)) ; j++)

{

if (studentArray[ j ].getAge() > studentArray [ j + 1].getAge())

{

Student temp = studentArray [ j ];

studentArray [ j ] = studentArray [ j + 1];

studentArray [ j + 1] = temp;

}

}

}

// end of sorting

String display = "<html>By Age: <p>";

for (int i = 0; i < numStudents; i++) {

display = display + "<p>" + studentArray[i];

}

// display the resulting message string

jLabel6.setText(display);

}

**StudentClass**

public class Student {

// variable declaration

private String studentname, gender;

public int age, height;

public Student (String studentsname, String studentsgender, int studentsage, int studentsheight)

{

studentname= studentsname;

gender= studentsgender;

age = studentsage;

height = studentsheight;

}

public String getStudentName ()

{

return studentname;

}

public int getHeight()

{

return height;

}

public int getAge()

{

return age;

}

public String toString()

{

String result = "Student " + studentname + ": Gender " + gender + ": Age " +

age + ": Height " + height;

return result;

}