# PP Task 5.3 Spot the Mistakes Answer Sheet

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## A Simple Sequence

**What is the compiler output? (Paste it below.)**

1 error found:

File: F:\2017\s2 2017\kit101\tasks\task 5 3 pp, spot the mistakes\ReplaceThisName.java [line: 16]

Error: cannot find symbol

symbol: variable A

location: class ReplaceThisName

**How would you describe the error in your own words?**

The method is attempting to use variable that does not exist. It shows it shows where and what the problem is.

**What would you change to correct the error?**

Change either the variable declaration or the variable in the method call so that the variables match.

Changing A in Math.max(A,b),c) to a

## Another Sequence

**What is the compiler output? (Paste it below.)**

1 error found:

File: F:\2017\s2 2017\kit101\tasks\task 5 3 pp, spot the mistakes\ReplaceThisName.java [line: 10]

Error: variable b might not have been initialized

**How would you describe the error in your own words?**

This error shows variable b is being used before it is initialised. It shows the location of the error.

**What would you change to correct the error?**

Line 10 and 11 need to be swapped, the two lines are in the wrong order causing the error to be produced. Variable b needs to be initialised before variable c is initialised. If b = 10; is place before c = a+b; then the error will be fixed.

## Loop over a String

|  |  |
| --- | --- |
| **Input used** | **Observed output** |
| august | ugust |

**Which parts of the output, including the ugly error message do you think are most useful?**

Enter a word: [DrJava Input Box]

u

g

u

s

t

java.lang.StringIndexOutOfBoundsException: String index out of range: 6

at java.lang.String.charAt(Unknown Source)

at ReplaceThisName.main(ReplaceThisName.java:14)

at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)

at sun.reflect.NativeMethodAccessorImpl.invoke(Unknown Source)

at sun.reflect.DelegatingMethodAccessorImpl.invoke(Unknown Source)

at java.lang.reflect.Method.invoke(Unknown Source)

at edu.rice.cs.drjava.model.compiler.JavacCompiler.runCommand(JavacCompiler.java:267)

>

The most important parts of the output are the first line of the error and the programs actual output.

**What is your interpretation of the error?**

The output is cutting of the first letter of the string.

The error indicates that the string index is out of range.

This seems to be indicating that the string always to long for the array

**What would you change to correct the error?**

The error can be fixed by changing the for loop to for(int I = 0; I < s.length(); i++)

## Array Error

**What output did you observe?**

Welcome to DrJava. Working directory is F:\2017\s2 2017\kit101\tasks\task 5 3 pp, spot the mistakes

> run ReplaceThisName

Length of first entry is 3

java.lang.ArrayIndexOutOfBoundsException: 4

at ReplaceThisName.main(ReplaceThisName.java:10)

at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)

at sun.reflect.NativeMethodAccessorImpl.invoke(Unknown Source)

at sun.reflect.DelegatingMethodAccessorImpl.invoke(Unknown Source)

at java.lang.reflect.Method.invoke(Unknown Source)

at edu.rice.cs.drjava.model.compiler.JavacCompiler.runCommand(JavacCompiler.java:267)

>

**Which parts of the error output do you think are most useful?**

The first two lines of the error are useful.

**What is your interpretation of the error?**

The first line says what the string in the array being to big caused the error. The second line ells where the problem line is, this line says line 10.

This error has been caused by the tested string being the wrong size.

**What would you change to correct the error?**

The error is in line 10. This can be fixed by changing words[words.length].length()); to words[words.length-1].length());

## Conditional Confusion

|  |  |
| --- | --- |
| **Input used** | **Observed output** |
| 15 | Smaller than 20 |
| 30 | Smaller than 20 |

**What do you think the cause of the erroneous behaviour is?**

There is a stray semicolon after the if statement. There is also no output for values equal or greater than 20

**What would you change to correct it?**

The semicolon needs to be removed. An else statement needs to be added for handling of values equal or greater than 20.