

Module: COS101
Department: Computer Science
Assignment: Term 4 Practical 3B
Lecturer: Mr. C. K. Baker
Due date: 03 October 2024, 4 PM
Total: Pass / Fail



Instructions

This practical is a programming competency assessment. You must provide working and correct solutions to ANY TWO questions. You may not use any built-in Java libraries – write your own code. Submit a compressed (.zip) file with all your code, your signed declaration of plagiarism and list of references. The submission file should be named **XXYYZZZ.zip** where **XXYYZZZ** corresponds to your student number.

Question 1

Implement the `hasDuplicates` method, which returns true if there are any duplicate entries in the specified group of elements:

```
public static boolean hasDuplicates( String [ ] arr )
```

Save your program as `Question1.java`.

Question 2

Implement the `howMany` method, which returns the number of occurrences of `val` in `arr`:

```
public static int howMany( String [ ] arr, String val)
```

Save your program as `Question2.java`.

Question 3

Implement the `removeDuplicates` method, which removes multiple instances of the same element in `arr` and return a new array without duplicate elements:

```
public static String [] removeDuplicates( String [ ] arr )
```

Save your program as `Question3.java`.