

5COSC001W - Solutions to Tutorial 1 Exercises

1 Familiarisation with Online Learning in the Blackboard Environment

Your tutor will go through some material on how online learning will work. You are assumed to have read the relevant document and ask questions about that, if not, make sure you ask your tutor how you will do what!

2 Java/Netbeans Reminder

```
public class Hello_OOP {  
    public static void main(String[] args) {  
        System.out.println("Welcome to Online Learning!\n\nPlease virus go away!");  
    }  
}
```

3 Java/Netbeans Reminder - Syntax of the main method

A public class should have the same name as the name of the file without the `java` extension. Case sensitivity.

`args` is an array of strings passed to the command line. It can have an arbitrary (variable) number of command line arguments passed to it.

There is nothing special about the name `args` it could be `x` or whatever.

```
public class CommandLineArgumentsExample {  
    public static void main(String[] foo) {  
        for (String e: foo)  
            System.out.println(e);  
    }  
}
```

Running this in the command line:

```
java CommandLineArgumentsExample one two three
```

produces:

```
one
two
three
```

You can do the same thing in Netbeans by setting the run arguments in the menu: Goto project by right clicking (two-finger click on Mac, right click on Linux, Windows) on the project name. Then select **Properties->Run** and type your arguments in the **Arguments** textbox. Run your program to see the output!

4 Java Reminder - For Loops and ifs

```
class EvenNumbersExample {
    public static void main(String[] hohoho) { // no args here?
        for (int i=1; i <= 100; i++) {
            if (i % 2 == 0)
                System.out.println(i + " is even");
        }
    }
}
```

5 Java Reminder - While Loops and ifs

```
class EvenNumbersExample {
    public static void main(String[] hohoho) { // no args here?
        int i = 1;
        while (i <= 100) {
            if (i % 2 == 0)
                System.out.println(i + " is even");
            ++i;
        }
    }
}
```

6 A Lottery Program

```
import java.util.*;

class Lotto {
    static int[] storage = new int[6];

    public static void main(String[] args) { // args is back keep the good name in
        Random random_generator = new Random();
        int count = 0;
```

```

while (count < 6) {
    int randomNumber = 1 + random_generator.nextInt(49);

    if (!isItAlreadyThere(randomNumber)) {
        storage[count] = randomNumber;
        ++count;
    }
    //System.out.println(randomNumber);
}

for (int x: storage)
    System.out.println(x);
}

static boolean isItAlreadyThere(int x) {
    for (int e: storage) {
        if (e == x)
            return true;
    }

    return false;
}
}

```