

Magee - OOP - Java - Sample 1

Mr. D Bylsma
Chris
Adrian

```
package com.adrian;

import com.creatifcubed.simpleapi.Console;

public class DriverAlpha {

    public static void main(String[] args) {
        // possible infinite loop!
        while (true) {
            // get user input
            String in = Console.readLine("What is the password? ");
            // we hardcode "root" as the password. You can change this to whatever you want
            if (in.equals("root")) {
                Console.println("Logged in");
                // call readCommands - java will jump to the code body for readCommands,
                // execute that code, then continue here after readCommands is done
                readCommands();
                // since there's nothing after readCommands,
                // the loop will just restart after readCommands finishes
            } else if (in.equals("exit")) {
                // if the user typed exit, we will break out of the loop, which will be the end
                // (nothing after this while loop)
                break;
            } else {
                // User didn't type in the right password, didnt' want to exit,
                // must have been an incorrect attempt
                Console.println("Wrong password");
            }

            // end of loop body. Loop will restart
        }
    }

    public static void readCommands() {
        // another while (true) structure
        while (true) {
            String in = Console.readLine("Command? ");
            if (in.equals("exit")) {
                // again, stop the loop if the user wants to exit
                break;
            } else if (in.equals("hello")) {
                Console.println("Hi admin");
            } else if (in.equals("list marks")) {
                // call printClassMarks(). We will jump to printClassMarkers(), when it is done,
                // continue where we left off
                printClassMarks();
                // In this case, there's nothing else to do after printClassMarks().
                // The loop will start over
            } else if (in.equals("compute average")) {
```

```

        double x = Console.readDouble("Mark_1:_");
        double y = Console.readDouble("Mark_2:_");
        // pass x and y as parameters another method
        averageHelper(x, y);
    }
        // end of loop body. Loop will restart
    }
}

public static void printClassMarks() {
    // loops from all the numbers from 0 to 29 inclusive
    for (int i = 0; i < 30; i++) {
        // Example of string concatenation. Adding a number to a string turns it into a string
        // At the end we put our random mark code (50-99) in paranthesis to be safe
        // try it without paranthesis (you still need the paranthesis after println
        Console.println("Student_" + i + ":_:" + (50 + Math.random() * 50));
    }
}

public static void averageHelper(double mark1, double mark2) {
    double average = (mark1 + mark2) / 2;
    // Instead of concatenating strings, we can print them sequentially
    // print does not automatically create a new line,
    // so these words will show up one after another
    // and will look the same as concatenation to the user
    Console.print("The_average_of_");
    Console.print(mark1);
    Console.print("_and_");
    Console.print(mark2);
    Console.print("_is_");
    Console.println(average);
}
}
}

```