Extra Lab Sheet 2:
Introduction to Java programming

This section will help you getting started with Java programming using the machines in the ITL. You will need to know your User ID / Password of your EECS Account. This is different to your college one and can be found on the pink sheet that you were given. The following instructions are written as thought you are using the machines in the ITL under Linux. If you are not using the lab facilities, some of the details below might be slightly different, based on the operating system you are using. For any enquiries, feel free to use the QM+ Discussion Forum outside of the lab hours.

The source-code of all exercises will be available to you after the end of the today's lab.

Getting started

To get started, look at your 'Hello' program from last week again, it is the basis for our first exercise:

```
public class Hello {
      public static void main (String args[]) {
            System.out.println("Hello World!");
      }
}
```

As a reminder on how to navigate in the terminal, have a look at our Terminal commands again:

`pwd`	Print the path of the current working directory. (**p**rint **w**orking **d**irectory)
`ls`	**Li**s**t** the files of a directory
`mkdir <name>`	Create a new directory (**m**a**k**e **dir**ectory)
`cd <directory>`	Change the current working directory (**c**hange **d**irectory)
`gedit &`	Load gedit text editor (the & is important to not block the terminal!)
`javac <name>.java`	Compile the given java source code
`java <name>`	Run the compiled java program

Exercise 1

Modify the previous program (`Hello.java`) and change it to print your full name and your e-mail address in two separate lines, as shown in the following example:

```
java Hello¿
<First Name> <Last Name>
<E-mail>
```

Now replace the command `System.out.println()` with `System.out.print()`. How did this change affect the program execution?

Exercise 2

A *command-line argument* is a String argument passed to the program when it is executed (e.g `java Hello arg1 arg2 ...`). It can be accessed through the `String args[]` array. For example, `System.out.println(args[0])` will print the first argument passed to the program, `System.out.println(args[1])` will print the second argument, etc

Modify `Hello.java` again and change it to print the following two messages, using command-line arguments.

```
java Hello <FirstName> <LastName> <E-mail>¿
Hi <FirstName>!
Your e-mail is <E-mail>.
```

Exercise 3

Write a Java program that receives an integer number as an argument that represents a day (0 is Sunday and 6 is Saturday) and prints the day's name.

```
java Day 3¿
Wednesday
```

The program should be able to handle wrong days (numbers greater than 6 or less than 0) by printing an appropriate error message. Try to use the switch command instead of if-else if-else statements.

Exercise 4

Modify the previous program to handle days of the following calendar:

October 2013						
S	**M**	**T**	**W**	**T**	**F**	**S**
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

The program should receive the day as an integer number (from 1 to 31) and print the message *"The day on <day number> of October is <day name>"*.

```
java Day 21¿
The day on 21 of October is Monday.
```