Working from home

This handout is a simple guide for those students which want to work from home by using their own computer. The following documentation refers to machines which have Ubuntu installed as operating system.

Installing Java

The simplest way to download and install Java consists in using the Java Development Kit (JDK). This application comes with useful tools such as: a Java Virtual Machine (JVM) and a Java compiler. To install the JDK on your computer you need to type the following instruction.

```
$ sudo aptitude install sun-java6-jdk
```

At the end of the process, you can check the version of your Java by using the follow instruction.

```
$ java -version
```

In order to compile your source file `*.java` and produce and executable file `*.class` or `*.jar` for the java virtual machine you have to use the following instruction.

```
$ javac name_program.java
```

Then you can execute it by typing:

```
$ java name_program
```

GEdit

To write your Java programs you can use several text editors, for example GEdit. The following instruction installs GEdit on your Ubuntu machine.

```
$ sudo apt-get install gedit
```

Now, you can create and edit a Java file as follows:

```
$ gedit file_name.java &
```

Coping Files via SSH

Coping files from your computer to the Math/CS department and vice versa plays a crucial role when you have to work from home.

First of all, we want to establish a connection with the other machine. In order to login on a specific machine (e.g. lab3a in this case), you can use the following syntax:

```
$ ssh user_name@lab3a.mathcs.emory.edu
```

To copy a file from different hosts you can use the Secure Copy (`scp`). The following examples show how to copy a file from your local machine to a remote one and vice versa.

```
$ scp hw.java user_name@lab3a.mathcs.emory.edu:/home/user/cs170/hw/
```

The previous instruction copies the file `hw.java` from the current working directory of your local machine to `/home/user/cs170/hw/` in the host machine.

```
$ scp user_name@lab3a.mathcs.emory.edu:/home/user/cs170/hw/hw.java /home/local/
```

This second instruction copies the `hw.java` from `/home/user/cs170/hw/` from the host to your local home in your own computer.