Lab lecture exercises – Week 2

(a) **Set Up** In order to run JUnit tests we make use of the following two aliases:

```
alias junitc 'javac -d bin -cp bin:/bham/modules/roots/msc-sw/2019-20/
    lib/jar/junit-platform-console-standalone-1.5.2.jar'
alias junit 'java -jar /bham/modules/roots/msc-sw/2019-20/lib/jar/
    junit-platform-console-standalone-1.5.2.jar --class-path bin
    --scan-class-path'
```

In order not to have to type the two lines into each new terminal, add them permanently to your **.cshrc** file by

```
cat /home/staff/mmk/dropbox/wk02/addTo.cshrc >> .cshrc
```

Then close the terminal and open a new one. If the command **junit** runs successfully, everything works as it should.

(b) **JUnit – Terminal**

  (i) Copy the **JUnit.java** and **JUnitTests.java** from Canvas (lecture on Wednesday), or from **/home/staff/mmk/dropbox/wk02/**

  (ii) Compile the files by **javac -d bin JUnit.java** and **junitc JUnitTests.java**

  (iii) Run the tests by **junit**.

(c) **Eclipse**

  (i) Open **Eclipse** by entering in a terminal the command **eclipse &**.

  (ii) Enter a file space where you want **Eclipse** to write all your Java files.

  (iii) Possibly close the Welcome window (by clicking the x).

  (iv) Start a new **Project** by clicking **Java Project** following the **File** and then the **New**. Name the new project **Week2**, and press the **Finish** button.

  (v) Create a **Class** following **File** and **New** again. [Empty the package entry.]

  (vi) Give the class the Name **HelloWorld** and press the **Finish** button.

  (vii) Enter in the **HelloWorld.java** window the **HelloWorld** program.

  (viii) Run it by clicking the white arrow in the green circle.

(d) **JUnit – Eclipse**

  (i) Create the class **JUnit.java** (following **File**, **New**, and **Class** again) and the tests **JUnitTest.java** (following the **File**, **New**, and **JUnit Test case**).

  (ii) Add JUnit 5 library to the build path.

  (iii) Run the tests by clicking the white arrow in the green circle.

(e) **Class**
Write a class **Patient** with the field variables **name**, **id**, **address**, **phoneNumber** all of type **String**. Generate a **constructor**, **getters**, **setters**, and a **toString** method following the **Source** tab in **Eclipse**. Add an **equals** methods.

© 2019, Manfred Kerber, School of Computer Science, University of Birmingham