

**Due:**

Friday 11-May-2018 **by 23:59** (include your *name*, *student id* & *date* in each source file).

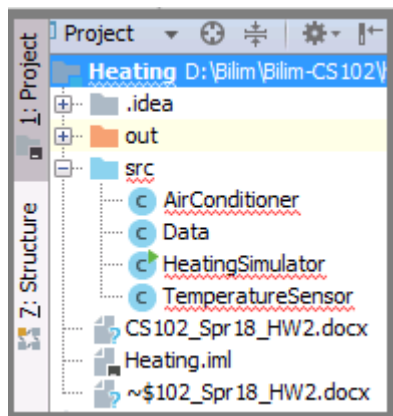
**Instructions**

1. Complete the *HeatingSimulator* program (guidance below).
2. Run it and place a *copy of its output in a comment after the main method*.
3. Zip up<sup>1</sup> the completed project (including the intellij **.idea** folder and **\*.iml** file).
4. Rename the zip file to include your name like in your **email address**:  
***firstname.lastname.homework2.zip***
5. Mail it to [fazl.rahman@antalya.edu.tr](mailto:fazl.rahman@antalya.edu.tr) with subject: **cs102 homework2**

Late submissions will be accepted up to 2 days after the *due date*, but subject to the penalties described in the syllabus. As you have no excuse not to include the project this time there will be a larger penalty if you forget.

**Guidance**

Before reading this document you had to unpack a zip file containing both it and a Java project named *Heating*. Open the project with IntelliJ (may need to setup SDK) you will find these four classes:



Each incomplete source file contains instructions contained in `/*...*/` block comments outlining what code you need to write. The first class you should complete is *AirConditioner*. The second class you should complete is *TemperatureSensor*. The third and last class you need to edit is the program, *HeatingSimulator*. Finally, run the simulation and when you have corrected any mistakes, place a copy of the output text as a comment after *main* before sending the work in to be marked.

**Background**

This illustrates a widely used technique called the *Observer* Design Pattern. It removes the need for explicit code in main to tell the aircon objects about temperature changes, as they get notified automatically by the sensor they are all observing. When the number of objects increases this can make a dramatic difference in the amount of code it saves you from writing (and debugging).

<sup>1</sup> In windows, right-click the project folder and choose **Send to -> Compressed (zipped) folder**. You may need to install e.g. 7zip if your computer doesn't have this built-in capability..