Create a project which uses TWO timers to do these things:

1. The 7-segment display should update every second - starting from zero, counting up to nine, resetting to zero and so on.

2. The green component of the RGB LED should turn on and off in such a way as to emulate pulse-width modulation with a millisecond period and a 25% duty cycle (so it is on for a quarter of the period, and off for three-quarters).

You will need to think about how many match registers are necessary to produce this behaviour, and how to use static variables to store persistent data in functions. There is a simple guide to PWM on the Sparkfun website.

Please rename your project so it is called something like "abc12_exercise_one", where abc12 is whatever your username is. To rename a project, right-click on the project name and one of the options is to rename it.

Upload a zip file containing the whole workspace - to do this:

- Go to **File**, then **Export**.
- Open the **General** folder, and select **Archive File**, then press **Next**.
- Press the **Deselect All** button, select the files you want to upload (see the document in this section) give a location and name for the archive file (**To archive file** box), and **Finish**.
- Press **Browse My Computer** (below, on this page), find the zip file you have just created, and upload it.
- **You have one attempt to upload this assignment**. If you aren't sure how to upload a file, please use the dummy assignment above. I will not accept files emailed to me, and I will not allow anyone to submit the assignment more than once. Make sure you upload the correct file.

Note - this is an **individual exercise.** You should work on the code on your own. You can use my code as the basis for your project, but if I discover any code which has clearly been copied from another student, you will get into trouble. Please upload the code by midday on Monday the 6th of November, and I will talk to you about it during that week's labs.