Workshop 1 - getting started with programming in MATLAB

- Due 25 Jul by 23:59
- Points 1
- Submitting an external tool

Workshop 1 - getting started with programming in MATLAB

In this workshop you will become familiar with

- programming in MATLAB and,
- organising your files
- saving your files to the U: Drive.
- if you have your own device, loading MATLAB onto that device -
- or accessing MATLAB from ADAPT
- submitting MATLAB work to

Make sure that your tutor marks you for participation before you leave. Remember workshops count towards active participation in the session. Submissions are not marked.

First Note:

This lab is designed to help you get started with MATLAB regardless of whether you have your own device at the workshop. We will start working with the computers in the lab so you can familiarise yourself with the University desktop environment. This is important because some assessments - such as practical exams - will require you to work with these machines.

Step 0 - Introductions and Demonstrations

At the beginning of this session you will form into groups of 2 to 3. The tutors will help you to form groups. Say hello to your group members - learn their names. Group membership will evolve during the semester as the workshops progress.

The demonstrator will introduce themselves and present a demonstration of :

1. how to log into the system and start up MATLAB.
2. how to set up a folder for the course on the U: drive (the U: drive is the place you can store and organise your files).
3. how to set up a folder for the workshop session.
4. how to write and run a very simple MATLAB script - they will also demonstrate the process of incrementally writing and testing code (including the importance of commenting).
5. how to save the MATLAB script with a meaningful name.

Step 1 - Logging in and Setting up a Folder

One of your group members should use your University ID and password to log into the Window's image in the lab and setting up a folder called "Programming" and then, inside the Programming folder setting up another folder called "week1".

Step 2 - Starting up Matlab and writing a script

The same group member should start up Matlab and start up an editor. The workshop supervisor will demonstrate how to start the editor.

With guidance from your group write and run some code in a new script to do **one** of the following things:

- Prompt the user for two numbers and print out their sum and print out their product.
- Prompt the user for a text string representing their name and make the computer print "Hello there " followed by the name.
- Prompt the user for their name and their height and print out a message telling the user their name and height.
- Prompt the user for three values representing the ages of three people and calculate the sum of these ages and display the sum.
- Prompt the user for a text string representing a noun (a naming word) and print out a message to say "you have left your <noun> at the restaurant."

When you have finished, save the script as week1workshop.m in the week1 folder you have just created.

Step 3: Other group member's turn

Now the first group member should log out and the other group members can log in and set up the directories and write and run a different one of the programs from step 2.

Step 4: Downloading MATLAB and Running Adapt

The demonstrator will show where to download MATLAB from the University site. The demonstrator will also how to run MATLAB in Adapt. The Demonstrator will also discuss options for transfering files from your own device to your U: drive.

In groups work at loading and running MATLAB onto your own devices (if you have one) if you do not have your own device at the workshop then try to run MATLAB in Adapt on your terminal machine and to edit, run, and save a MATLAB script.

Step 5: Submitting MATLAB files

Each person in your group should save a copy of your MATLAB script and submit the file for the assignment.

This will be the only Workshop with a submission. Workshops are for monitoring your programming process, so normally there is no submission to be made as your tutor will be monitoring your work. The purpose of this submission is just to check that you can submit as you will need to submit practical assessments.

If you have finished?

If you have finished then look at the menus in MATLAB. You will see that there are keyboard shortcuts next to each menu item. These allow you to get things done faster. Practice these.

If you have not already done so, view the week 1 (need to be completed by Wednesday) and week 2 (need to be completed by before Monday's seminar) videos and complete the quizzes.

Before you leave your session make sure you are marked off for participation.

End of Workshop Specification.