Getting Started with the Programming Assignments Script

Hi. This tutorial is designed to introduce students to Matlab Online and its use in solving the programming assignments for this course. The goal of these assignments is to help in visualizing the key concepts taught in this course. Let's get started.

The first window we observe is the problem description where details regarding the assignment and its requirements are mentioned. This section often contains links to download files for your desktop Matlab. We recommend using the desktop version frequently when loading your solutions and to help inspect your variables and debug your code.

For function problems, there are two code boxes. The first code box is where you implement the functions for the assignment and it will often contain some code to get started. The second code box is for testing. This box will consist of some code to test your function but can modify your test for different scenarios. The run function button runs the code to order to call your function box and displays any output there. The submit button tests your function and returns a result. Let's see how this works.

In this example, we are going to create a rotation matrix about the z axis for a given angle in radians which is given by the equation in the description. So our task is to create a matrix according to the formula shown. Let's go ahead and plug in the formula.

Now that I think my function is done, let's use the run function button to test if my function works as expected. Always test the function before pressing submit to make sure there aren't any syntactical errors. Great, our function runs and we see the rotated vector. Remember, we can modify this code to test the function multiple times. Let's go ahead and change the vector and run this code again.

Now that we think our function is correct, let's press submit. Oops! Looks like we made a mistake. Notice the two levels of feedback. The feedback in red is directly from code. Feedback in black is the initial set-up hints provided regarding possible errors. So in this case, I have the error because of negative sin. Let me update the code and try again.

Great, now we have all green checks and why we have successfully passed the problem.

Don't worry if you get stuck. Code rarely works the first time and the problems in this course are quite challenging. So pat yourselves on the back when you get them right. When you want to get help in the forums, include three things in your post: the assessment descriptions that failed or that you have questions on, the red error message returned which can vary based on the type of error, the description of your approach or pseudo-code outlining your approach. Please do not post any actual code in the forums, even if it is not working. Thank you.