**REPORT JULY 08**

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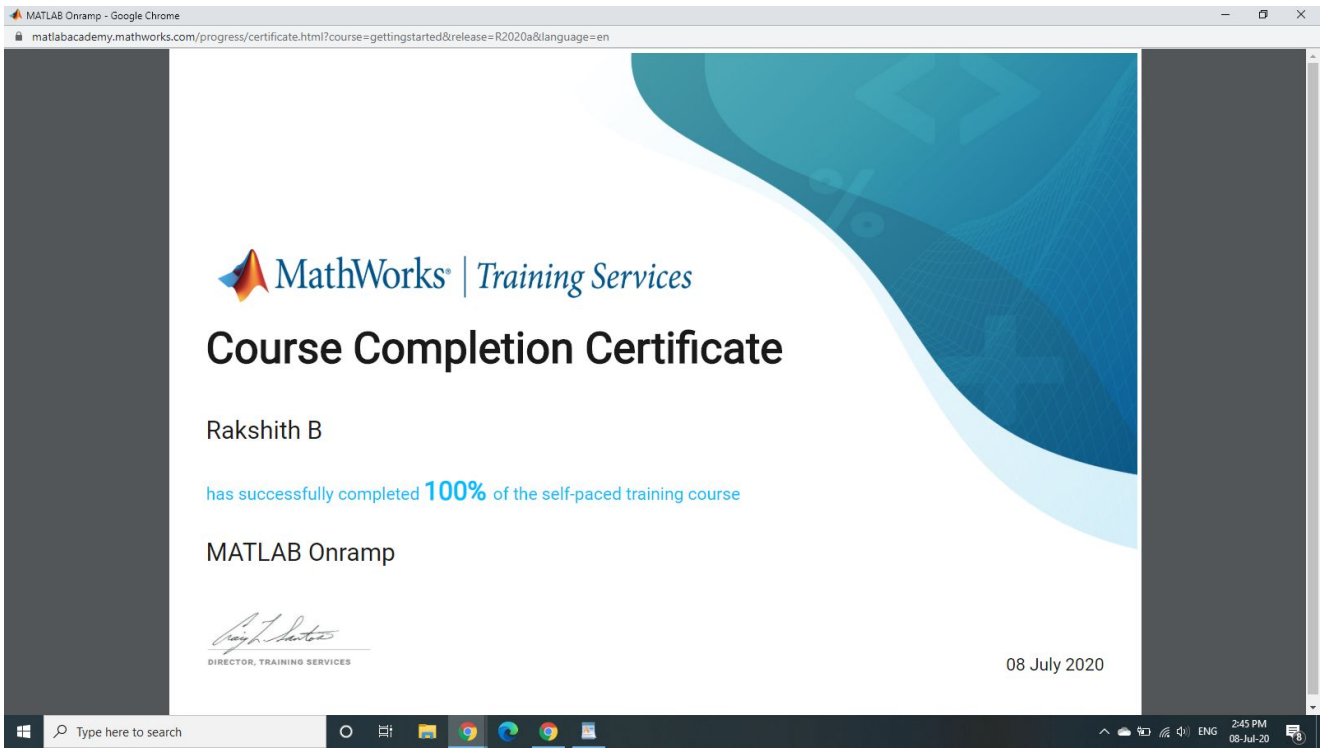
| **Date:** | **08 JULY 2020** | **Name:** | **Rakshith B** |
| **Course:** | **Matlab** | **USN:** | **4AL16EC409** |
| **Topic:** | **Calling Function, Obtaining Help,Plotting Data** | **Semester & Section:** | **6th SEM B** |
| **Github Repository:** | **Rakshith-B** | | |

**Image of the Session**




**Report:**

**Calling Functions:**

The size function can be applied to an array to produce a single output variable containing the array size.

s = size(x)

The size function can be applied to a matrix to produce either a single output variable or two output

variables. Use square brackets ([ ]) to obtain more than one output.

[xrow,xcol] = size(x)

The maximum value of a vector and its corresponding index value can be determined using the max function. The first output from the max function is the maximum value of the input vector. When called with two outputs, the second output is the index value.

[xMax,idx] = max(x)

Obtaining Help:

The MATLAB documentation contains examples and information that can help you when working on your own problems.

Plotting Data:

Two vectors of the same length can be plotted against each other using the plot function.

plot(x,y)

The plot function accepts an additional argument that allows you to specify the color, line style, and marker style using different symbols in single quotes.

plot(x,y,"r--o")

The command above plots a red (r) dashed (--) line with a circle (o) as a marker. You can learn more about the symbols available in the documentation for Line Specification.

Notice that each plot command created a separate plot. To plot one line on top of another, use the hold on command to hold the previous plot while you add another line.

While the hold state is on, plots will continue to go on the same axes. To return to the default plot behavior, where each plot gets its own axes, enter hold off.

When you plot a single vector by itself, MATLAB uses the vector values as the *y-axis* data and sets the *x-axis* data to range from 1 to n (the number of elements in the vector)

The plot function accepts optional additional inputs consisting of a property name and an associated value.

plot(y,"LineWidth",5)

The command above plots a heavy line. You can learn more about available properties in the documentation for Line Properties.

You can provide additional inputs to the plot function after the line specifier.

plot(x,y,"ro-","LineWidth",5)

Labels can be added to plots using plot annotation functions, such as title. The input to these functions is a string. Strings in MATLAB are enclosed in double quotes (").

title("Plot Title")