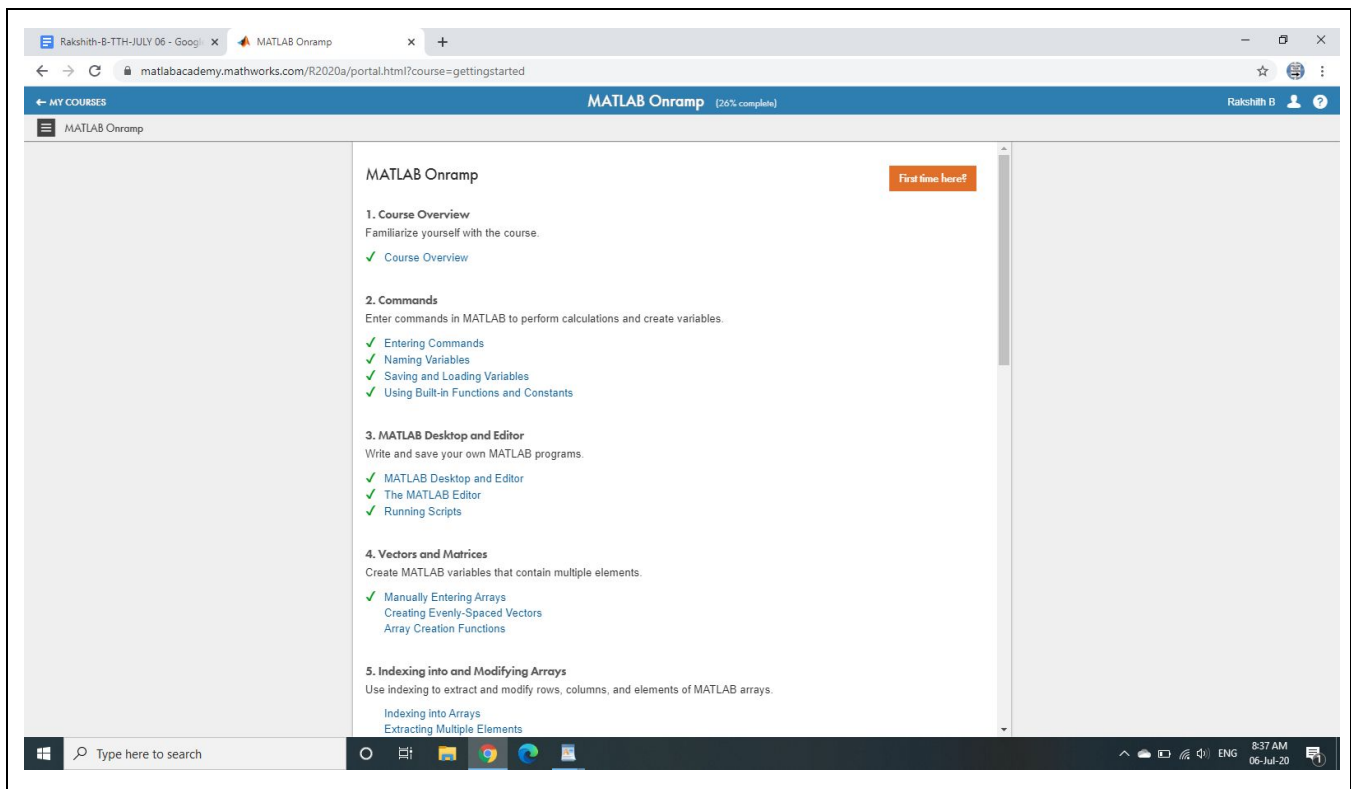


REPORT JULY 06

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Course:	Matlab	USN:	4AL16EC409
Topic:	Course Overview, Commands, Matlab desktop and editor	Semester & Section:	6th SEM B
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Image of the Session



Report:

Commands

You can execute commands by entering them in the command window after the MATLAB prompt (`>>`) and pressing the Enter key.

Unless otherwise specified, MATLAB stores calculations in a variable named `ans`.

```
>> 7 + 3
```

```
ans =
```

```
10
```

The equals sign (=) in MATLAB is the *assignment* operator, meaning that the expression on the right of the equals sign is assigned to the variable on the left.

When you enter `x = 3 + 4`, MATLAB first evaluates `3 + 4` and then assigns the result (7) to the variable `x`.

Notice that the Workspace window (on the right) shows all the variables currently in the workspace.



WORKSPACE			
NAME ▲	VALUE	SIZE	CLASS
ans	15	1x1	double
m	16	1x1	double

Adding a semicolon to the end of a command will suppress the output, though the command will still be executed, as you can see in the workspace. When you enter a command without a semicolon at the end, MATLAB displays the result in the command prompt.

```
>> x = 5 + 1
```

```
x =
```

```
6
```

```
>> x = 5 + 1;
```

You can recall previous commands by pressing the Up arrow key on your keyboard. Note that the Command Window must be the active window for this to work.

When you enter just a variable name at the command prompt, MATLAB returns the current value of that variable.

You can save variables in your workspace to a MATLAB specific file format called a MAT-file using the `save` command.

To save the workspace to a MAT-file named `filename.mat`, use the command:

```
>> save filename
```

Solving and Loading Variables

You can save variables in your workspace to a MATLAB specific file format called a MAT-file using the `save` command.

To save the workspace to a MAT-file named `filename.mat`, use the command:

```
>> save filename
```

When you switch to a new problem in MATLAB, you might want to tidy up your workspace. You can remove all variables from your workspace with the `clear` function.

In the workspace, you can see that `clear` removed all the variables.

You can load variables from a MAT-file using the `load` command.

```
>> load filename
```

Notice that the variable data is listed in the workspace. You can see contents of any variable by entering the name of the variable.

```
>> myvar
```

The `clear` function cleans up the workspace. You can use the `clc` command to clean up the Command Window

Using Builtin function and Constants

MATLAB contains built-in constants, such as pi to represent π .

```
>> a = pi
```

```
a =
```

```
3.1416
```

Also, although only four decimal places are shown for π , it is represented internally with greater precision.

MATLAB contains a wide variety of built-in functions, such as abs (absolute value) and eig (calculate eigenvalues).

```
>> a = sin(-5)
```

```
a =
```

```
0.9589
```

Note that MATLAB uses parentheses to pass inputs to functions, similar to standard mathematical notation.

Running Scripts

This live script contains formatted text, code, and section breaks. In this course, scripts will include Task headers to show where you should enter your code.

You can test your code before submitting by running the script. To execute the entire script, click the Run button

What's an Array?

All MATLAB variables are *arrays*. This means that each variable can contain multiple elements. You can use arrays to store related data in one variable.

Because you'll use arrays every time you program, it's important to get to know them and the terminology used to describe them.