Report

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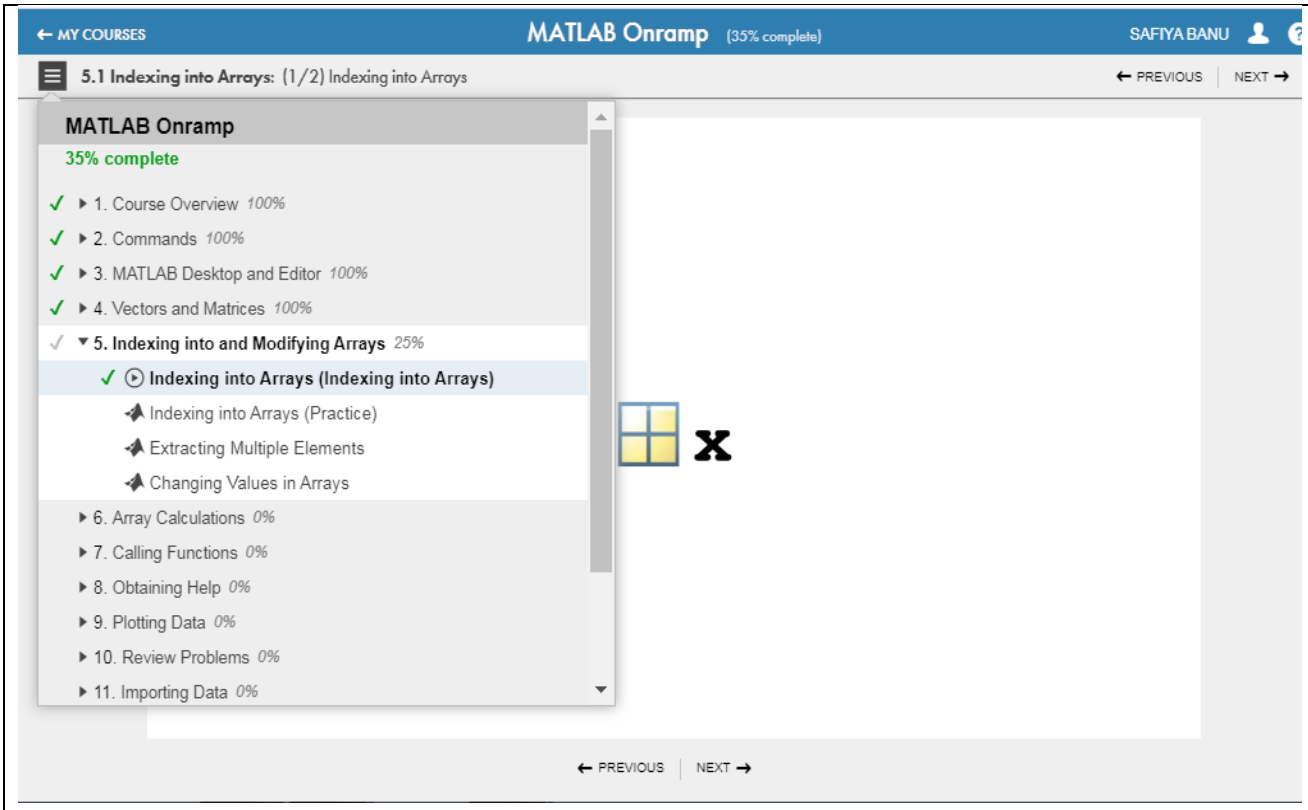
Course:	**MATLAB Onramp**	**USN:**	**4AL16EC061**
Topic:	**1. Course Overview** **2. Commands** **3. MATLAB Desktop and Editor** **4. Vectors and Matrices**	**Semester & Section:**	**8th sem "B"section**
Github Repository:	**Safiya-Courses**		


← MY COURSES
MATLAB Onramp (35% complete)
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5.1 Indexing into Arrays: (1/2) Indexing into Arrays
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MATLAB Onramp
35% complete
✓ 1. Course Overview 100%
✓ 2. Commands 100%
✓ 3. MATLAB Desktop and Editor 100%
✓ 4. Vectors and Matrices 100%
5. Indexing into and Modifying Arrays 25%
✓ Indexing into Arrays (Indexing into Arrays)
Indexing into Arrays (Practice)
Extracting Multiple Elements
Changing Values in Arrays
6. Array Calculations 0%
7. Calling Functions 0%
8. Obtaining Help 0%
9. Plotting Data 0%
10. Review Problems 0%
11. Importing Data 0%
← PREVIOUS
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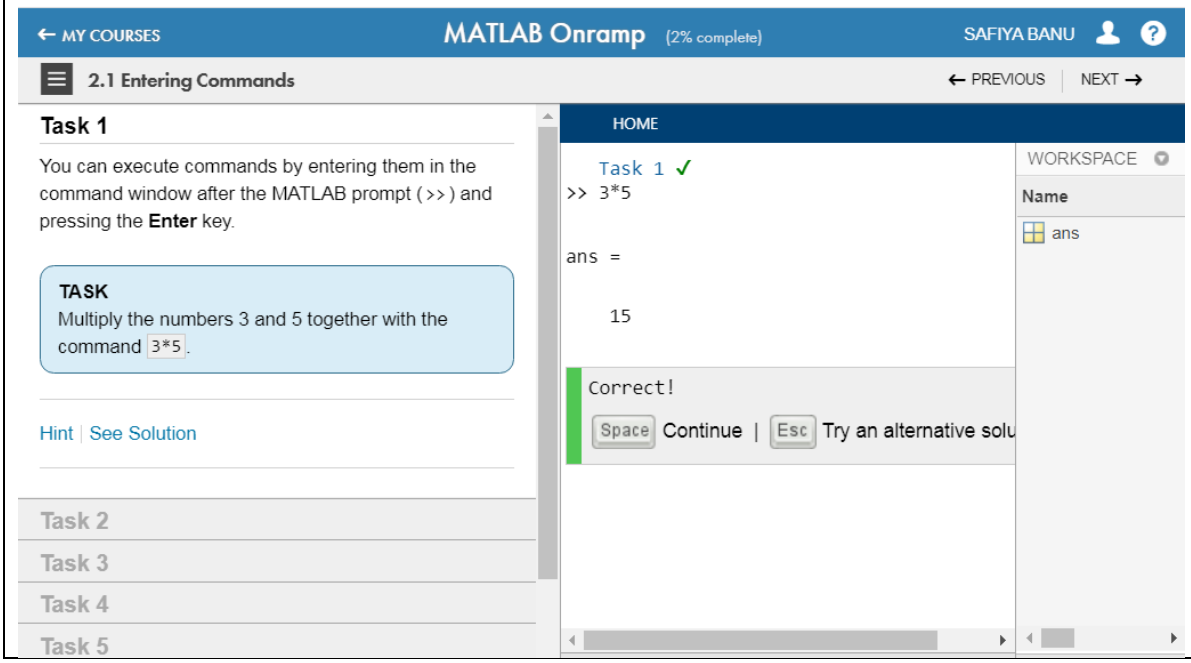
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MATLAB Onramp (2% complete)
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2.1 Entering Commands
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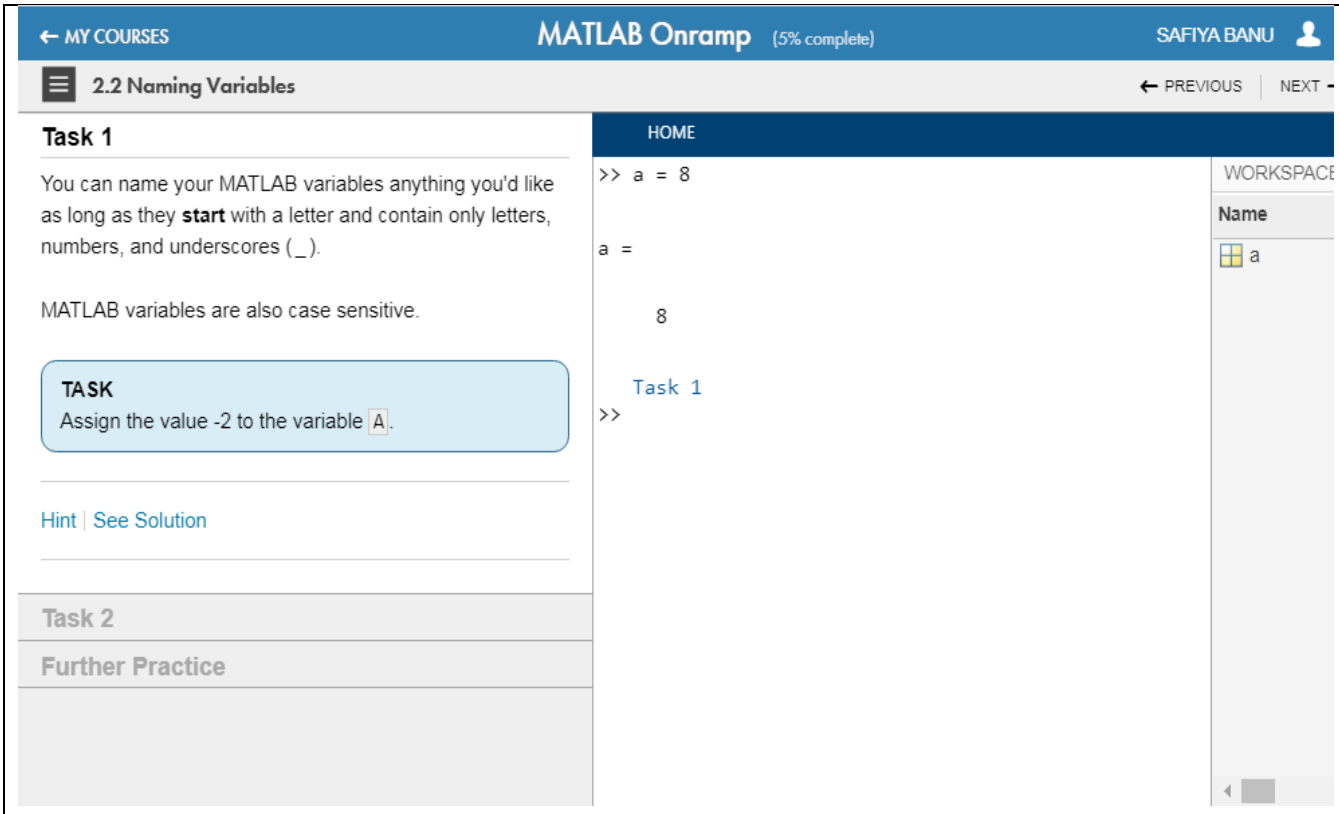
Task 1
You can execute commands by entering them in the command window after the MATLAB prompt (>>) and pressing the Enter key.
TASK
Multiply the numbers 3 and 5 together with the command 3*5.
Hint | See Solution
Task 2
Task 3
Task 4
Task 5
HOME
Task 1 ✓
>> 3*5
ans =
15
Correct!
Space Continue | Esc Try an alternative solu
WORKSPACE
Name
ans



NAMING VARIABLES

You can name your MATLAB variables anything you'd like as long as they **start** with a letter and contain only letters,numbers,andUnderscores(_).

MATLAB variables are also case sensitive.

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.

When you separate numbers by spaces (or commas) as shown in the previous task, MATLAB combines the numbers into a row vector, which is an array with one row and multiple columns (1-by-n). When you separate numbers by semicolons, MATLAB creates a column vector (n-by-1).

```
x = [1;3]
x =
   1
   3
```

If you know the number of elements you want in a vector (instead of the spacing between each element), you could instead use the linspace function:

```
linspace(first,last,number_of_elements)
```

.

Note the use of commas (,) to separate inputs to the linspace function.

```
x = linspace(0,1,5)
x =
   0    0.250    0.500    0.750    1.00
```

Array Creation Functions

MATLAB contains many functions that help you to create commonly used matrices, such as matrices of random numbers.

```
x = rand(2)
x =
   0.8147    0.1270
   0.9058    0.9134
```

Note that the 2 in the command rand(2) specifies that the output will be a 2-by-2 matrix of random numbers.