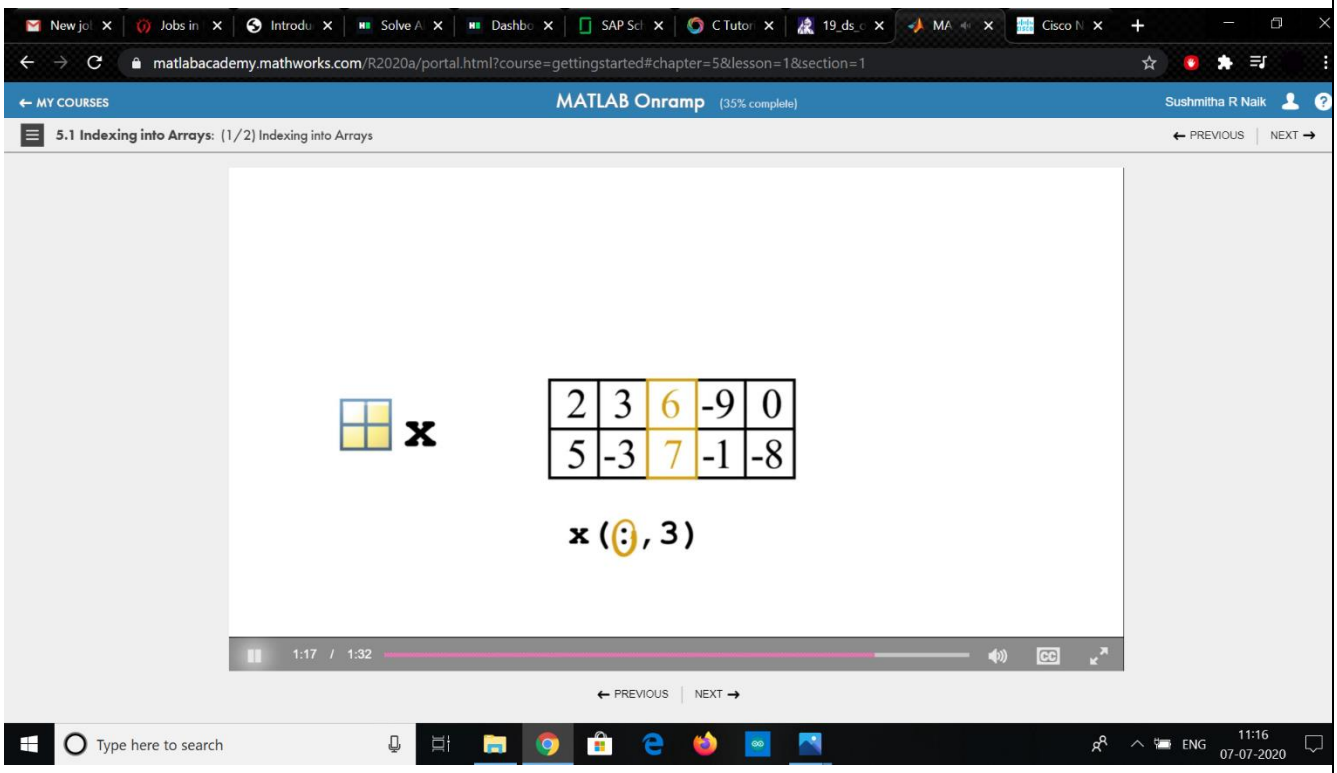
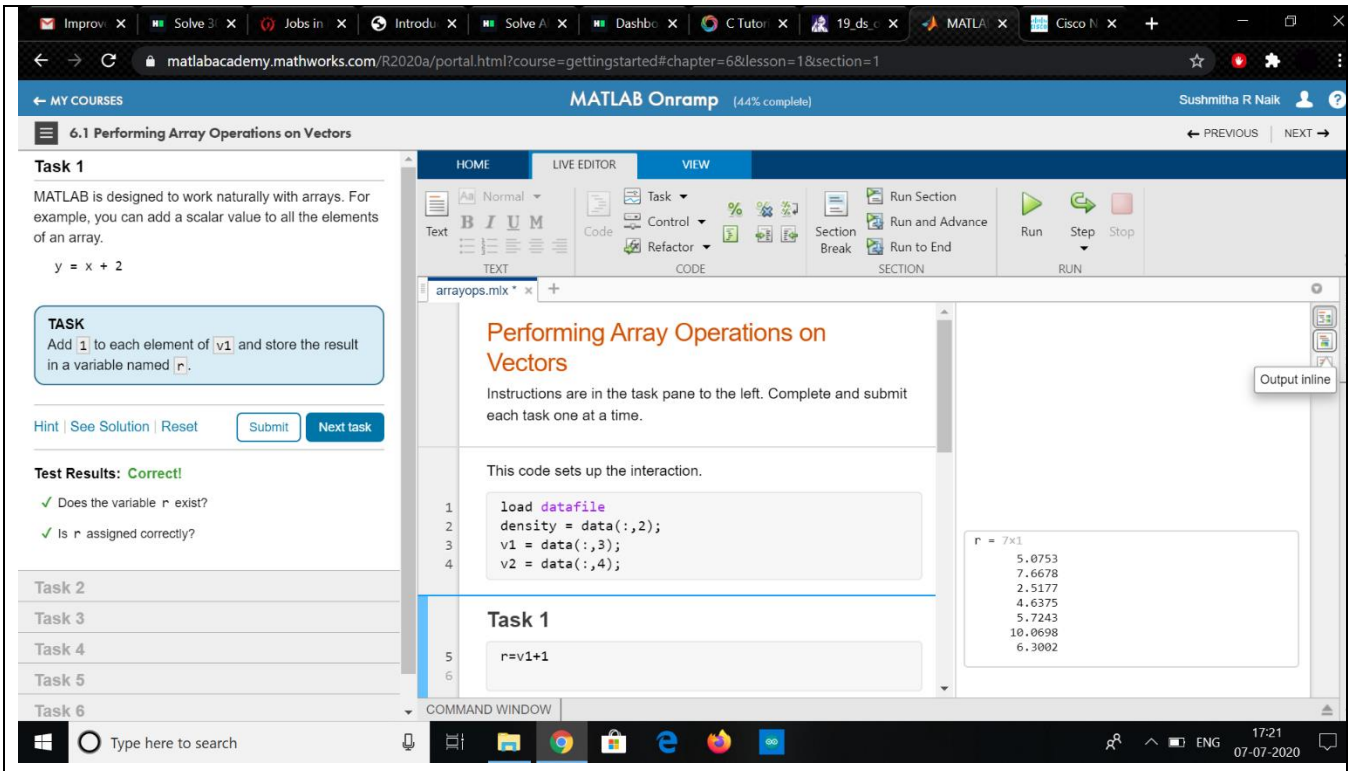
DAILY ASSESSMENT FORMAT

Date:	**7th July 2020**	**Name:**	**Sushmitha R Naik**
Course:	**MATLAB Onramp**	**USN:**	**4al17ec090**
Topic:	• **Indexing into and Modifying Arrays. Array Calculations.** • **Calling Functions** • **Obtaining Help, Plotting Data**	**Semester & Section:**	**6th B**
GitHub Repository:	**Sushmitha_naik**		

FORENOON SESSION DETAILS
Image of session





Report –

extract values from an array using row, column indexing.

y = A (5,7)

This syntax extracts the value in the 5th row and 7th column of A and assigns the result to the variable y

use the MATLAB keyword end as either a row or column index to reference the last element.

y = A(end,2)

When used as an index, the colon operator (:) specifies all the elements in that dimension. The syntax

x = A(2,:)

creates a row vector containing all of the elements from the second row of A.

The colon operator can refer to a range of values. The following syntax creates a matrix containing the first, second, and third rows of the matrix A.

x = A (1:3, :)

A single index value can be used to reference vector elements. For example

x = v(3)

returns the third element of vector v when v is either a row or column vector.

A single range of index values can be used to reference a subset of vector elements. For example
x = v(3:end)
returns a subset of vector v containing the elements from 3 to the end

Elements of a variable can be altered by combining indexing with assignment.
A(2) = 11

Basic statistical functions in MATLAB can be applied to a vector to produce a single output. The maximum value of a vector can be determined using the max function.
xMax = max(x)

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)

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

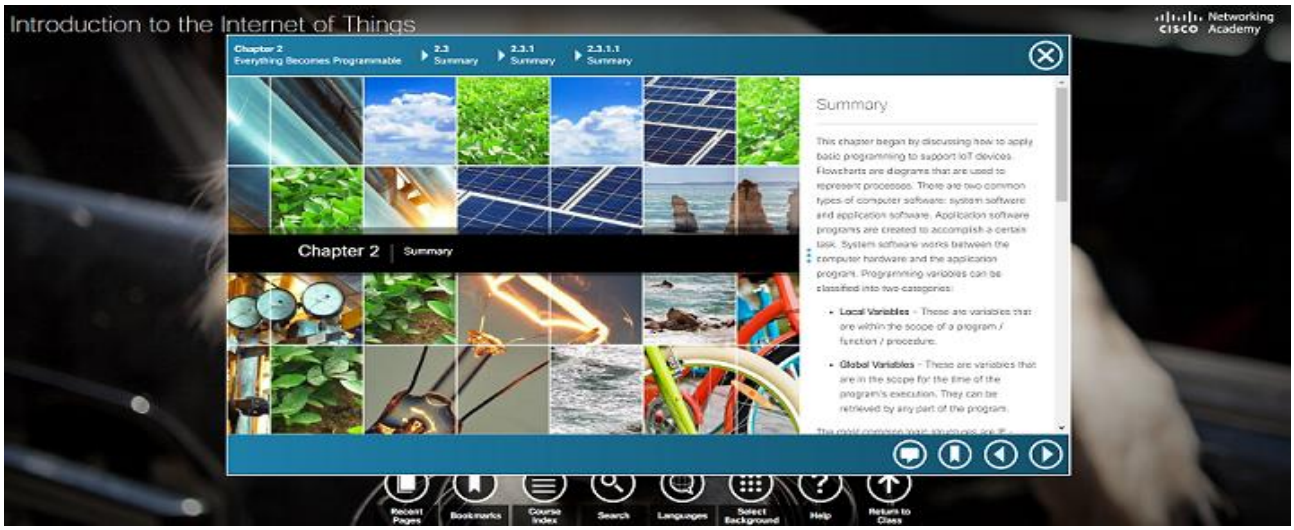
The plot function accepts optional additional inputs consisting of a property name and an associated value.
plot(y,"LineWidth",5)
The command above plots a heavy line

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")

Date:	**7th July 2020**	**Name:**	**Sushmitha R Naik**
Course:	**Introduction to Internet of Things**	**USN:**	**4al17ec090**
Topic:	**1. Chapter 1 -Everything is Connected** **2. Chapter 2: Everything Becomes Programmable**	**Semester Section:**	**6th B**
GitHub repository	**Sushmitha_naik**		

AFTERNOON SESSION DETAILS

Image of session

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Chapter 1
Everything is Connected
1.1
Digital Transformation
1.1.2
Globally Connected Through Networks
1.1.2.5
Packet Tracer – Create a Simple Network Using Packet Tracer
Cisco Networking Academy
Cisco Packet Tracer
Packet Tracer | Create a Simple Network Using Packet Tracer
Packet Tracer - Create a Simple Network Using Packet Tracer
In this lab, you will use Packet Tracer to create a simple network.
Packet Tracer - Create a Simple Network Using Packet Tracer Instructions
Power Cycle Devices Fast Forward Time
Scenario 0
Type here to search
ENG
12:35
07-07-2020

Report –

The Evolution of Digital Transformation

Tell the truth …. how many of you could actually make it through a day without your smartphone? In our world today, there are more smart devices than there are people. A growing number of people are connected to the Internet, in one way or another, 24 hours a day. An ever-increasing number of people have, and rely on, three, four, or more smart devices. These might include smartphones, exercise and health monitors, e-readers, and tablets. As shown in Figure 1, by 2020, it is forecast that each consumer will have an average of 6.58 smart devices.

Packet Tracer – Deploying and Cabling Devices

Since Packet Tracer simulates networks and network traffic, the physical aspects of these networks also need to be simulated. This includes actually finding and deploying physical devices, customizing those devices, and cabling those devices. After the physical deployment and cabling is done, then it is time for configuration of the interfaces used to connect the devices.

Networking is the Foundation

Thirty billion things provide trillions of gigabytes of data. How can they work together to enhance our decision-making and improve our lives and our businesses? Enabling these connections are the networks that we use daily. These networks provide the foundation for the Internet and the digitized world.

The methods that we use to communicate continue to evolve. Whereas we were once limited by cables and plugs, breakthroughs in wireless and digital technology have significantly extended the reach of our communications.

Networks form the foundation of the digitized world. Networks come in all sizes. They can range from simple networks consisting of two computers to networks connecting millions of devices.

Simple networks in homes enable connectivity to the Internet. They also enable the sharing of resources, such as printers, documents, pictures, and music, between a few local computers.

In businesses and large organizations, networks can provide products and services to customers through their connection to the Internet. Networks can also be used on an even broader scale to provide consolidation, storage, and access to information on network servers. Networks allow for email, instant messaging, and collaboration among employees. In addition, the network enables connectivity to new places, giving machines more value in industrial environments.

The Internet is the largest network in existence and effectively provides the "electronic skin" that surrounds the planet. In fact, the term Internet means a "network of networks". The Internet is literally a collection of interconnected private and public networks. Businesses, small office networks, and home networks connect to the Internet.

Flowcharts are used in many industries including engineering, physical sciences, and computer programming where a complete understanding of processes or workflows is required. Flowcharts are diagrams that are used to represent these processes or workflows.

Flowcharts illustrate how a process should work. Flowcharts should not require complex, industry-specific terminology or symbols. A flowchart should be easy to understand without having to be an expert in the chosen field.

Flowcharts should show input states, any decisions made, and the results of those decisions. It is important to show the steps that should be taken when the result of a decision is either yes or no.

Prototyping is the process of creating a rudimentary working model of a product or system. For prototyping in the IoT, it helps to have design skills, electrical skills, physical/mechanical skills (work with your hands to put things together), programming skills, and to understand how TCP/IP works. But you do not need to be an expert in any of these areas. In fact, prototyping helps you to refine these skills.

How to Prototype
How do you prototype? There are a few ways to get started. A team at Google used the "Rapid Prototyping Method" to create the Google Glass. Click here view a TedTalk about this process.

Of course, Google has a large number of resources to pay for the people and materials that go into prototyping. Most of us need some financial help to get our ideas out of our heads and into a prototype. For us, there is crowd funding. Kickstarter, Indiegogo, and Crowdfunder are just three of the many online crowd funding programs. Click here to view the Pebble Watch Kickstarter Video. This online video was used to generate donations to help this group of inventors create the Pebble Watch.