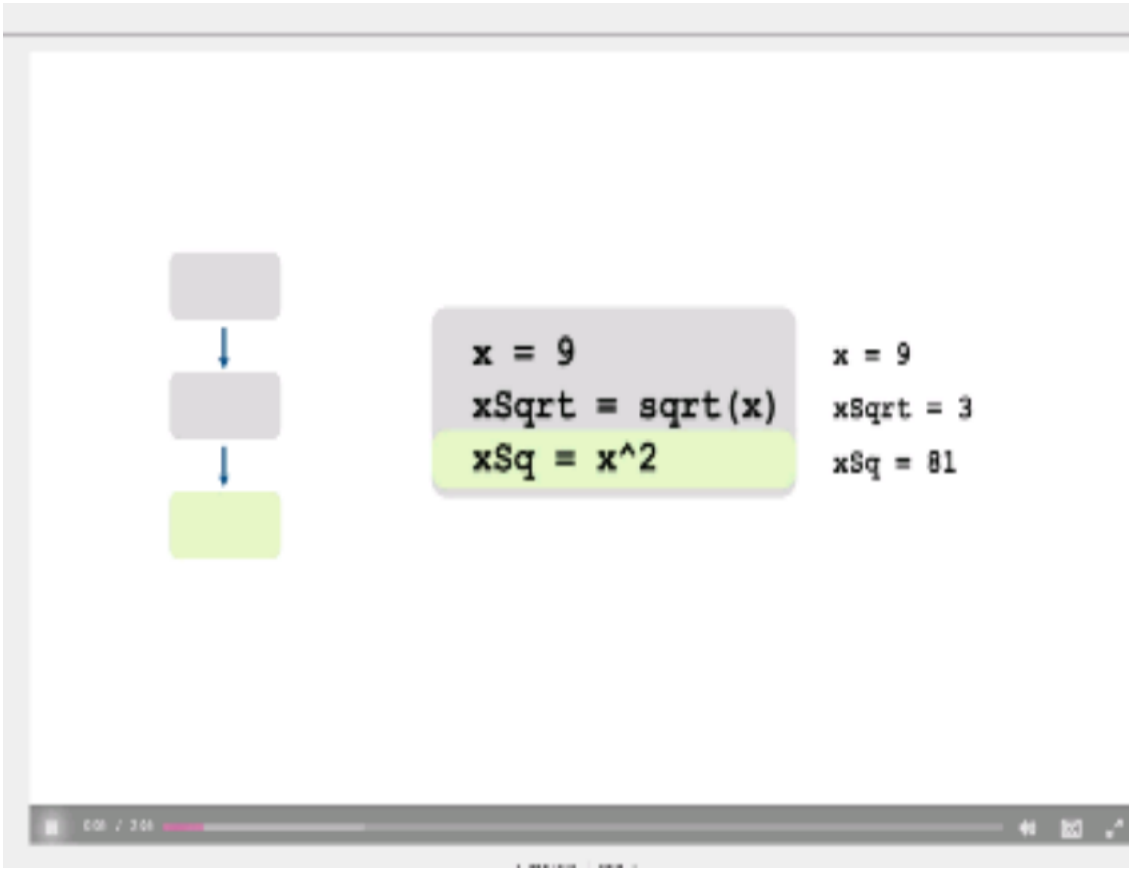
DAILY ASSESSMENT FORMAT

Date:	08/07/2020	Name:	Nichenametla Bhargavi
Course:	MATLAB	USN:	4AL17EC061
Topic:	Calling functions and Plotting data	Semester & Section:	6th Sem A sec
Github Repository:	Bhargavi_Nichenametla		

FORENOON SESSION DETAILS
Image of session



Report- Report can be typed or handwritten upto one or two pages.

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)

* 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.

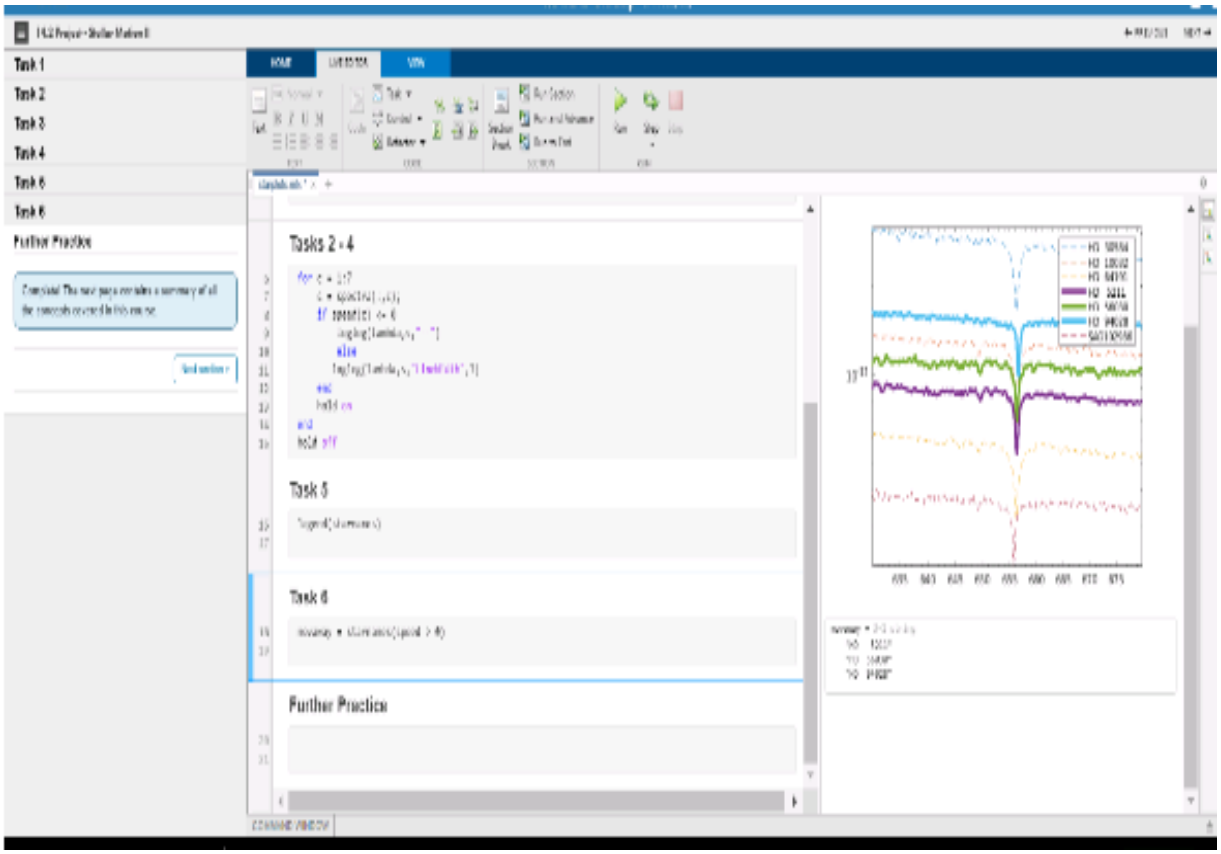
* You can provide additional inputs to the plot function after the line specifier.

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

* Labels can be added to plots using plot annotation functions, such as title.

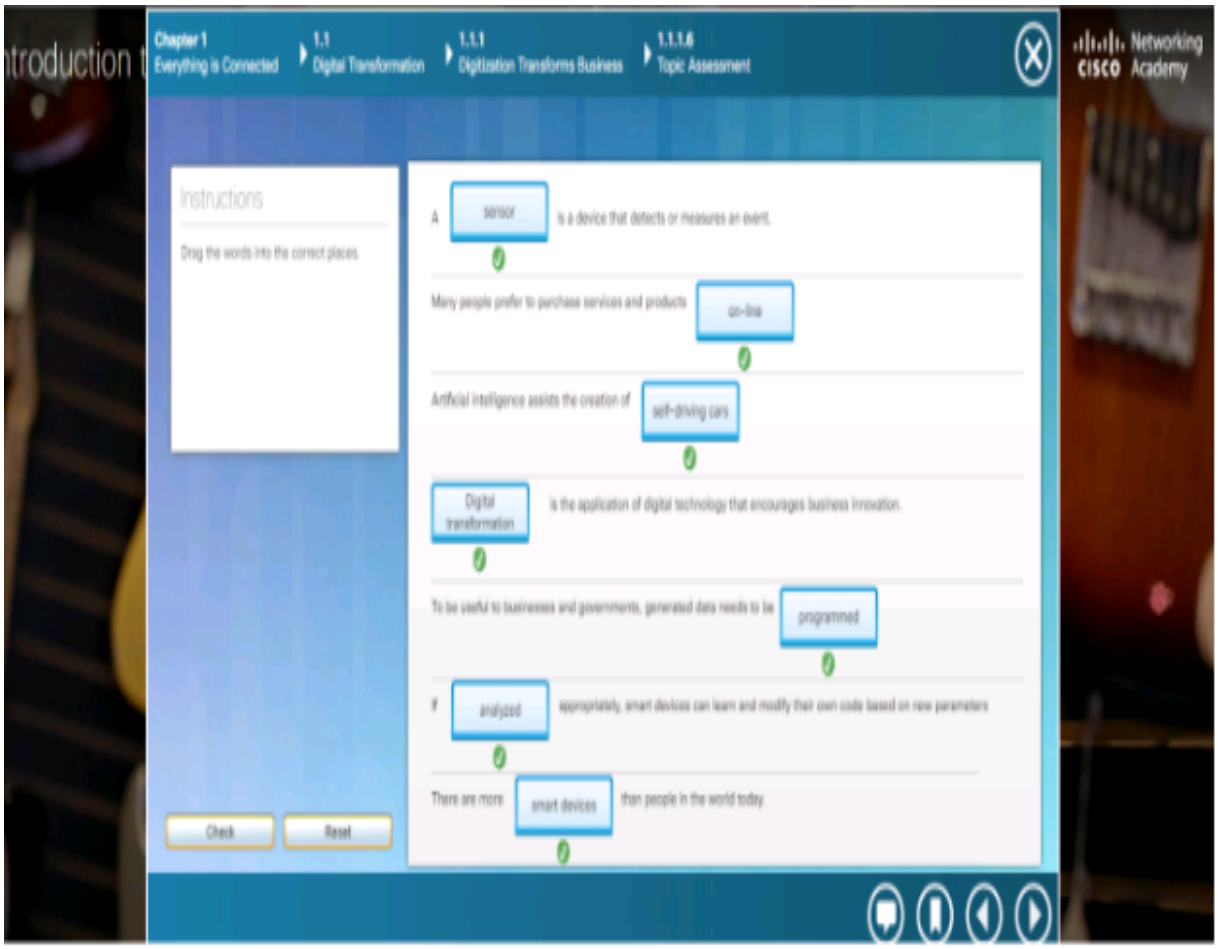
* The input to these functions is a string. Strings in MATLAB are enclosed in double quotes (").

title("Plot Title")



Date:	08/07/2020	Name:	Nichenametla Bhargavi
Course:	Introduction to Internet of Things	USN:	4AL17EC061
Topic:	Chapter 3	Semester & Section:	6th Sem A sec

AFTERNOON SESSION DETAILS
Image of the session



Report:

Introduction to Internet of Things (IoT) :

* The Internet of things (IoT) is a system of interrelated computing devices, mechanical and digital machines provided with unique identifiers (UIDs) and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.

* The Internet of things (IoT) is a system of interrelated computing devices, mechanical and digital machines provided with unique identifiers (UIDs) and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.

* The definition of the Internet of things has evolved due to the convergence of multiple technologies, real-time analytics, machine learning, commodity sensors, and embedded systems.

* Traditional fields of embedded systems, wireless sensor networks, control systems, automation (including home and building automation), and others all contribute to enabling the Internet of things.

* In the consumer market, IoT technology is most synonymous with products pertaining to the concept of the "smart home", covering devices and appliances (such as lighting fixtures, thermostats, home security systems and cameras, and other home appliances) that support one or more common ecosystems, and can be controlled via devices associated with that ecosystem, such as smartphones and smart speakers.

* There are a number of serious concerns about dangers in the growth of IoT, especially in the area of privacy and security, and consequently industry and governmental moves to address these concerns have begun.

* The main concept of a network of smart devices was discussed as early as 1982, with a modified Coca-Cola vending. machine at Carnegie Mellon University becoming the first Internet-connected appliance, able to report its inventory and whether newly loaded drinks were cold or not.

* Mark Weiser's 1991 paper on ubiquitous computing, "The Computer of the 21st Century", as well as academic venues such as UbiComp and PerCom produced the contemporary vision of the IoT.

* In 1994, Reza Raji described the concept in IEEE Spectrum as "[moving] small packets of data to a large set of nodes, so as to integrate and automate everything from home appliances to entire factories".

* Between 1993 and 1997, several companies proposed solutions like Microsoft's at Work or Novell's NEST. The field gained momentum when Bill Joy envisioned device-to-device communication as a part of his "Six Webs" framework, presented at the World Economic Forum at Davos in 1999.

* The term "Internet of things" was likely coined by Kevin Ashton of Procter & Gamble, later MIT's Auto-ID Center, in 1999, though he prefers the phrase "Internet for things".

* At that point, he viewed radio-frequency identification (RFID) as essential to the Internet of things, which would allow computers to manage all individual things.

* Defining the Internet of things as "simply the point in time when more 'things or objects' were connected to the Internet than people".

* Cisco Systems estimated that the IoT was "born" between 2008 and 2009, with the things/people ratio growing from 0.08 in 2003 to 1.84 in 2010.

* The key driving force behind the Internet of things is the MOSFET (metal-oxide-semiconductor field-effect transistor, or MOS transistor), which was originally invented by Mohamed M. Atalla and Dawon Kahng at Bell Labs in 1959.

* The MOSFET is the basic building block of most modern electronics, including computers,smartphones, tablets and Internet services.

* MOSFET scaling miniaturization at a pace predicted by Dennard scaling and Moore's law has been the driving force behind technological advances in the electronics industry since the late 20th century.

* MOSFET scaling has been extended into the early 21st century with advances such as reducing power consumption, silicon-on-insulator (SOI) semiconductor device fabrication, and multi-core processor technology, leading up to the Internet of things, which is being driven by MOSFETs scaling down to nanoelectronic levels with reducing energy consumption.