

DAILY ASSESSMENT FORMAT

Date:	06-07-2020	Name:	Abhishek
Course:	MATLAB Onramp	USN:	4a17ec001
Topic:	<ul style="list-style-type: none">• Course Overview• Commands• MATLAB Desktop and Editor• Vectors and Matrices	Semester & Section:	6 & 'A'
Github Repository:	Abhishek-online-courses		

FORENOON SESSION DETAILS

Image of session

MY COURSES
MATLAB Onramp (32% complete)
Muthu k

4.3 Array Creation Functions
PREVIOUS
NEXT

MATLAB Onramp
32% 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 0%
 - 6. Array Calculations 0%
 - 7. Calling Functions 0%
 - 8. Obtaining Help 0%
 - 9. Plotting Data 0%
 - 10. Review Problems 0%
 - 11. Importing Data 0%
 - 12. Logical Arrays 0%
 - 13. Programming 0%
 - 14. Final Project 0%
 - 15. Conclusion 0%

LIVE EDITORVIEW

Task
Code
Control
Refactor
Run Section
Run and Advance
Section Break
Run to End
Run
Step
Stop

Array Creation Functions

Instructions are in the task pane to the left. Complete and submit each task one at a time.

Task 1

= rand(5)

Task 2

= rand(5,1)

Task 3

x = zeros(6,3)

Further Practice

x = 5x5

0.8147	0.0975	0.1576	0.1419	0.6557
0.9058	0.2785	0.9706	0.4218	0.0357
0.1270	0.5469	0.9572	0.9157	0.8491
0.9134	0.9575	0.4854	0.7922	0.9340
0.6324	0.9649	0.8003	0.9595	0.6787

x = 5x1

0.7577
0.7431
0.3922
0.6555
0.1712

x = 6x3

0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

Report –

MATLAB Introduction:

- The name **MATLAB** stands for **MATrix LABoratory**.
- MATLAB was written originally to provide easy access to matrix software developed by the LINPACK (linear system package) and EISPACK (Eigen system package) projects.
- MATLAB is a high-performance language for technical computing.

- It integrates computation, visualization, and programming environment.
- Furthermore, MATLAB is a modern programming language environment.
- It has sophisticated data structures, contains built-in editing and debugging tools, and supports object-oriented programming.
- These factors make MATLAB an excellent tool for teaching and research. MATLAB has many advantages compared to conventional computer languages (e.g., C, FORTRAN) for solving technical problems.
- MATLAB is an interactive system whose basic data element is an array that does not require dimensioning.
- The software package has been commercially available since 1984 and is now considered as a standard tool at most universities and industries worldwide.
- The major tools within or accessible from the desktop are:
 - ✓ The Command Window
 - ✓ The Command History
 - ✓ The Workspace
 - ✓ The Current Directory
 - ✓ The Help Browser
 - ✓ The Start button
- Here are few additional useful commands:
 - ✓ To clear the Command Window, type `clc`
 - ✓ To abort a MATLAB computation, type `ctrl-c`
 - ✓ To continue a line, type `. . .`

Date:	06-07-2020	Name:	Abhishek
Course:	Introduction to IOT	USN:	4a17ec001
Topic:	<ul style="list-style-type: none"> • Chapter 0 • Chapter 1 	Semester & Section:	6 & 'A'

AFTERNOON SESSION DETAILS	
Image of session	

Chapter 1
Everything is Connected

1.1
Digital Transformation

1.1.2
Globally Connected Through Networks

1.1.2.2
Network Types

Wireless Networks

Type	Range	Standards
Personal area network (PAN)	Within reach of a person	Bluetooth, ZigBee, NFC
Local area network (LAN)	Within a building or campus	IEEE 802.11 (WiFi)
Metropolitan area network (MAN)	Within a city	IEEE 802.15 (WiMAX)
Wide area network (WAN)	Worldwide	Cellular (UMTS, LTE, etc.)

Network Types

Modern networks can be a bit confusing. There are many types that are characterized by their geographic size, by the number of devices or networks that they connect, and by whether they support mobile devices or not. Networks can also be characterized by their function and purpose.

Personal Area Network (PAN)

Personal area networks are small networks where connected wireless devices are within personal reach (Figure 1). Connecting your smartphone to your car using Bluetooth is an example of a PAN.

Local Area Network (LAN)

LANs are typically networks in a small or local geographic area, such as a home, small business or department within a large corporation (Figure 2). LANs can connect two

1 2 3 4 5 6 Figures

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Report –

Intoduction to IOT:

- The 'Thing' in IoT can be any device with any kind of built-in-sensors with the ability to collect and transfer data over a network without manual intervention.
- The embedded technology in the object helps them to interact with internal states and the external environment, which in turn helps in decisions making process.
- In a nutshell, IoT is a concept that connects all the devices to the internet and let them communicate with each other over the internet.
- IoT is a giant network of connected devices – all of which gather and share data about how they are used and the environments in which they are operated.
- By doing so, each of your devices will be learning from the experience of other devices, as humans do.
- IoT is trying to expand the interdependence in human- i.e interact, contribute and collaborate to things.
- A developer submits the application with a document containing the standards, logic, errors & exceptions handled by him to the tester.
- Again, if there are any issues Tester communicates it back to the Developer.
- It takes multiple iterations & in this manner a smart application is created.
- Similarly, a room temperature sensor gathers the data and send it across the network, which is then used by multiple device sensors to adjust their temperatures accordingly.
- For example, refrigerator's sensor can gather the data regarding the outside temperature and accordingly adjust the refrigerator's temperature.
- Similarly, your air conditioners can also adjust its temperature accordingly.
- This is how devices can interact, contribute & collaborate.

