

## DAILY ASSESSMENT FORMAT

Date:	09-07-2020	Name:	Abhishek
Course:	MATLAB Onramp	USN:	4a17ec001
Topic:	<ul style="list-style-type: none"><li>• Review Problems</li><li>• Importing data</li><li>• Logical Arrays</li></ul>	Semester & Section:	6 & 'A'
Github Repository:	Abhishek-online-courses		

### FORENOON SESSION DETAILS

Image of session

12.1 Logical Indexing

79% 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 100%
- ✓ 6. Array Calculations 100%
- ✓ 7. Calling Functions 100%
- ✓ 8. Obtaining Help 100%
- ✓ 9. Plotting Data 100%
- ✓ 10. Review Problems 100%
- ✓ 11. Importing Data 100%
- ✓ 12. Logical Arrays 100%
  - ✓ Logical Indexing
- ✓ 13. Programming 33%
- 14. Final Project 0%
- 15. Conclusion 0%

Next section >

Task 1

Task 2

Logical Indexing

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

This code sets up the interaction.

```
load datafile
sample = data(:,1);
v1 = data(:,3);
```

est = pi < 4

Workspace

Name	Value
data	7×4 double
sample	[3, 18, 19, 2]
v1	[4.0753, 6]

Command Window

```
>> |
```

Report –

### Importing Data:

- Importing data in MATLAB means loading data from an external file.
- The **importdata** function allows loading various data files of different formats.
- It has the following five forms –

1	<b>A = importdata(filename)</b> Loads data into array A from the file denoted by <i>filename</i> .
2	<b>A = importdata('-pastespecial')</b> Loads data from the system clipboard rather than from a file.
3	<b>A = importdata(___, delimiterIn)</b> Interprets <i>delimiterIn</i> as the column separator in ASCII file, filename, or the clipboard data. You can use <i>delimiterIn</i> with any of the input arguments in the above syntaxes.
4	<b>A = importdata(___, delimiterIn, headerlinesIn)</b> Loads data from ASCII file, filename, or the clipboard, reading numeric data starting from line <i>headerlinesIn+1</i> .
5	<b>[A, delimiterOut, headerlinesOut] = importdata(___)</b> Returns the detected delimiter character for the input ASCII file in <i>delimiterOut</i> and the detected number of header lines in <i>headerlinesOut</i> , using any of the input arguments in the previous syntaxes.

## Logical Arrays

- MATLAB offers two types of logical operators and functions –
  - ✓ *Element-wise* – these operators operate on corresponding elements of logical arrays.
  - ✓ *Short-circuit* – these operators operate on scalar, logical expressions.
- Element-wise logical operators operate element-by-element on logical arrays.
- The symbols &, |, and ~ are the logical array operators AND, OR, and NOT.
- Short-circuit logical operators allow short-circuiting on logical operations.
- The symbols && and || are the logical short-circuit operators AND and OR.

<b>Date:</b>	<b>09-07-2020</b>	<b>Name:</b>	<b>Abhishek</b>
<b>Course:</b>	<b>Introduction to IOT</b>	<b>USN:</b>	<b>4a17ec001</b>
<b>Topic:</b>	<b>Chapter 5</b>	<b>Semester &amp; Section:</b>	<b>6 &amp; 'A'</b>

## AFTERNOON SESSION DETAILS

### Image of session

The screenshot shows a Cisco Academy presentation slide titled "Data Center Physical Security". The slide is part of a course titled "Introduction to the Internet of Things". The navigation bar at the top indicates the current location: Chapter 5 (Everything Needs to be Secured) > 5.1 (Security in the Digitized World) > 5.1.2 (Protecting the Corporate World) > 5.1.2.2 (Physical Security).

The main content area features a 3D rendering of a data center building with a yellow circular path and plus signs around it, indicating key security points. To the right of the rendering, the text reads:

**Physical Security**

Today's data centers store vast quantities of sensitive, business-critical information; therefore, physical security is an operational priority. Physical security not only protects access to the premises, but also protects people and equipment. For example, fire alarms, sprinklers, seismically-braced server racks, and redundant heating, ventilation, and air conditioning (HVAC) and UPS systems are in place to protect people and equipment.

Figure one shows a representation of a data center. Select each circle for more information.

Physical security within the data center can be divided into two areas, outside and inside.

- **Outside perimeter security** - This can include on-premise security officers, fences, gates, continuous video surveillance, and security breach alarms.

The bottom of the slide includes a navigation bar with icons for Recent Pages, Bookmarks, Course Index, Search, Languages, Select Background, Help, and Return to Class. The slide is labeled "Figures" with a counter showing 1, 2, and 3.

## Report –

### Types of Data

- Data generated by computers and digital devices is still groups of 1s and 0s which has not changed.
- What has changed is the quantity, volume, variety, and immediacy of the generated data.
- Today, gathered data is taking on new characteristics.
- The digitized world has opened the floodgates for data gathering.
- IoT sensor-enabled devices are collecting more and more data of a personal nature.

### Physical Security

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- For example, fire alarms, sprinklers, seismically-braced server racks, and redundant heating, ventilation, and air conditioning (HVAC) and UPS systems are in place to protect people and equipment.
- Physical security within the data center can be divided into two areas, outside and inside.
  - ✓ *Outside perimeter security* - This can include on-premise security officers, fences, gates, continuous video surveillance, and security breach alarms.

- ✓ *Inside perimeter security* - This can include continuous video surveillance, electronic motion detectors, security traps, and biometric access and exit sensors.

## Smart Homes

- Smart home technology has become very popular and its popularity is increasing every year as the technology evolves.
- The cool part is it to check on the dog or to verify that your teenagers are doing their homework after school by activating your home security cameras.
- Even virtual assistants such as Apple SIRI, Amazon Echo, or Google Home can be security risks.
- People use these devices to turn on music, adjust room temperatures, order products on -line, and get directions for where they are going.
- It is possible that personal information such as passwords or credit card information could be leaked.
- Fortunately many of the security flaws of the early smart technology sensors have already been discovered.
- Developers are working to correct the flaws and improve security measures to protect their systems from attack.