

DAILY ASSESSMENT FORMAT

Date:	07-07-2020	Name:	Abhishek
Course:	MATLAB Onramp	USN:	4a17ec001
Topic:	<ul style="list-style-type: none">• Indexing into and Modifying Arrays• Array Calculatios	Semester & Section:	6 & 'A'
Github Repository:	Abhishek-online-courses		

FORENOON SESSION DETAILS

Image of session

The screenshot displays the MATLAB Onramp environment. On the left, a task pane lists course topics, with 'Performing Array Operations on Vectors' selected under the '6. Array Calculations' section. The central area shows a code editor with the following MATLAB code:

```
load datafile
density = data(:,2);
v1 = data(:,3);
v2 = data(:,4);
```

Below the code editor, a 'Task 1' section shows the command `v = 1 + v1`. On the right, the 'WORKSPACE' panel lists variables: `data` (7x4 double), `density` (0.5300, 1), `v1` (4.0753, 8), and `v2` (0.5000, 2).

Report –

MATLAB Arrays:

- Matrices and arrays are the fundamental representation of information and data in MATLAB.
- You can create common arrays and grids, combine existing arrays, manipulate an array's shape and content, and use indexing to access array elements.
- For an overview of matrix and array manipulation.

▼ Indexing

<code>colon</code>	Vector creation, array subscripting, and for-loop iteration
<code>end</code>	Terminate block of code or indicate last array index
<code>ind2sub</code>	Convert linear indices to subscripts
<code>sub2ind</code>	Convert subscripts to linear indices

▼ Determine Size, Shape, and Order

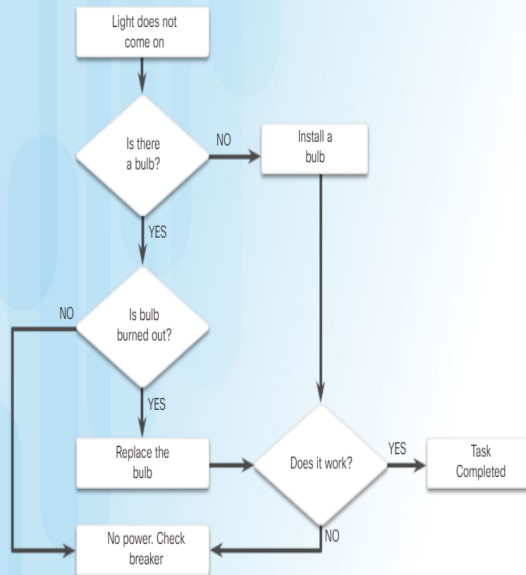
<code>length</code>	Length of largest array dimension
<code>size</code>	Array size
<code>ndims</code>	Number of array dimensions
<code>numel</code>	Number of array elements
<code>isscalar</code>	Determine whether input is scalar
<code>issorted</code>	Determine if array is sorted
<code>issortedrows</code>	Determine if matrix or table rows are sorted
<code>isvector</code>	Determine whether input is vector
<code>ismatrix</code>	Determine whether input is matrix
<code>isrow</code>	Determine whether input is row vector
<code>iscolumn</code>	Determine whether input is column vector
<code>isempty</code>	Determine whether array is empty

Date:	07-07-2020	Name:	Abhishek
Course:	Introduction to IOT	USN:	4a17ec001
Topic:	<ul style="list-style-type: none"> • Chapter 2 • Chapter 3 	Semester & Section:	6 & 'A'

AFTERNOON SESSION DETAILS	
Image of session	



Light Bulb Replacement Flowchart



Example of a flowchart. Rectangles represent actions. Diamonds represent decisions

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.

It is common for programmers to create a first draft of a program in no specific programming language. These language-independent programs are focused on the logic rather than in the syntax and are often called algorithms. A flowchart is a common way to represent an algorithm. An example of a flowchart is shown in the figure.



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Report –

Flowchart

- 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.
- There are two common types of computer software:
 - ✓ System software
 - ✓ Application software
- Programming languages utilize variables as dynamic buckets to hold phrases, numbers, or other important information that can be used in coding.
- Instead of repeating specific values in numerous places throughout the code, a variable can be used.
- People impart logic to computers through programs.
- Using specific logic structures, a programmer can prepare a computer to make decisions.

Blockly

- Blockly is a visual programming tool created to help beginners understand the concepts of programming.
- By using a number of block types, Blockly allows a user to create a program without entering any lines of code.
- Virtualization software allows a single physical server to host multiple virtual

machines.

- These machines are isolated from each other and can be saved, copied, and shared.
- This provides an excellent development and testing environment.

Big Data

- The rapid growth of data can be an advantage or an obstacle when it comes to achieving business goals.
- To be successful, enterprises must be able to easily access and manage their data assets.
- Big data is typically stored on multiple servers, usually housed within data centers.
- For security, accessibility, and redundancy, the data is usually distributed and/or replicated on many different servers in many different data centers.
- The cloud is a collection of data centers or groups of connected servers.
- Access to software, storage, and services available on the servers is obtained through the Internet via a browser interface.