

Daily Assessment Journal

Date: 08/Jul/2020

Course: MATLAB

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Topic: calling functions

- obtaining help
- plotting data
- review problems
- importing data
- logical arrays
- programming
- final project
- conclusion

GitHub

Repository: jyoti-courses

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MATLAB:

matlab is a multi-paradigm numerical computing environment & proprietary programming language developed by mathworks. MATLAB allows matrix manipulations, plotting of functions & data, implementation of algorithms, creation of user interfaces, & interfacing with programs written in other languages.

Although MATLAB is intended primarily for numerical computing, an optional toolbox uses the MuPAD symbolic engine allowing access to symbolic computing abilities. An additional package, Simulink, adds graphical multi-domain simulation & model-based design for dynamic & embedded systems.

As of 2020, MATLAB has more than 4 million users worldwide. matlab users come from various background of engineering, science & economics.

Variables

Variables are defined using the assignment operator
i.e. matlab is a weakly typed programming language

because types are implicitly converted. it is an inferred typed language because variables can be assigned without declaring their type except if they are to be treated as symbolic objects, & that their type can change. values can come from constants, from computation involving values of other variables, or from the output of a fun.

Date: 08/Jul/2020

Course: introduction to internet of things

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Topic: chapter 2

chapter 3

chapter 4

chapter 5

chapter 6

Github
Repository: jyoti-courses

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→ What is the IOT

The internet of things is the connection of millions of smart devices & sensors connected to the internet. These connected devices & sensors collect & share data for use & evaluation by many organizations. These organizations include businesses, cities, governments, hospitals & individual. The IOT has been possible, in part, due to the advent of cheap processors & wireless networks. Previously inanimate objects such as doorknobs or light bulbs can now be equipped with an intelligent sensor that can collect & transfer data to a network.

→ Lab - create a process flowchart
flowcharts are normally used to diagrammatically illustrate the process flow before a computer program is created. in this lab you will create a simple flowchart showing the process used to find a predetermined integer value.

→ what is Blockly?

Blockly is a visual programming tool created to help beginners understand the concepts of programming. By using a no of block types, Blockly allows a user to create a program without entering any lines of codes.

Blockly can be used to translate the block-based code into python or javascript. this is very useful to beginner programmers

→ Blockly Games

Google provides a series of free & open source educational games that can help you learn programming. the series is called Blockly games.

there are a no of levels to complete to help you get started. Blockly may look like a toy, but it is a great tool to improve your logical thinking skills, which is one of the building blocks of computer programming.

→ packet tracer - Blinking an LED Using Blockly

Cisco packet-tracer has incorporated Blockly as one of the programming languages available in its IOT functionality. In this lab you will control the blink rate of an LED using Blockly code.

→ what is python?

python is a very popular language that is designed to be easy to read & write. python's developer community adds value to the language by creating all types of modules & making them available to other programmers.

The core philosophy of the language is summarized by the document The Zen of Python:

- Beautiful is better than ugly
- Explicit is better than implicit
- Simple is better than complex
- Complex is better than complicated
- Readability counts