**DAILY ASSESSMENT FORMAT**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date:** | **07-07-2020** | **Name:** | **Bhavith** |
| **Course:** | **matlab** | **USN:** | **4AL17EC009** |
| **Topic:** | **Vectors and matrices** | **Semester & Section:** | **6th,A** |
| **Github Repository:** | **Bhavith-Online-Courses** |  |  |

|  |
| --- |
| **FORENOON SESSION DETAILS** |
| **Image of session**  **Screenshot (175)** |
| **Report – Report can be typed or hand written for up to two pages.**  **Screenshot (176)** **Vectors and matrices[[edit](https://en.wikipedia.org/w/index.php?title=MATLAB&action=edit&section=4" \o "Edit section: Vectors and matrices)]** **A simple array is defined using the colon syntax: *initial*:*increment*:*terminator*. For instance:**  **>> array = 1:2:9array = 1 3 5 7 9**  **defines a variable named array (or assigns a new value to an existing variable with the name array) which is an array consisting of the values 1, 3, 5, 7, and 9. That is, the array starts at 1 (the *initial* value), increments with each step from the previous value by 2 (the *increment* value), and stops once it reaches (or to avoid exceeding) 9 (the *terminator* value).**  **>> array = 1:3:9array = 1 4 7**  **the *increment* value can actually be left out of this syntax (along with one of the colons), to use a default value of 1.**  **>> ari = 1:5ari = 1 2 3 4 5**  **assigns to the variable named ari an array with the values 1, 2, 3, 4, and 5, since the default value of 1 is used as the increment.**  **[Indexing](https://en.wikipedia.org/wiki/One-based_indexing" \o "One-based indexing) is one-based,[[27]](https://en.wikipedia.org/wiki/MATLAB" \l "cite_note-27) which is the usual convention for [matrices](https://en.wikipedia.org/wiki/Matrix_(mathematics)" \o "Matrix (mathematics)) in mathematics, unlike zero-based indexing commonly used in other programming languages such as C, C++, and Java.**  **Matrices can be defined by separating the elements of a row with blank space or comma and using a semicolon to terminate each row. The list of elements should be surrounded by square brackets []. Parentheses () are used to access elements and subarrays (they are also used to denote a function argument list).**  **>> A = [16 3 2 13; 5 10 11 8; 9 6 7 12; 4 15 14 1]A = 16 3 2 13 5 10 11 8 9 6 7 12 4 15 14 1**  **>> A(2,3)ans = 11**  **Sets of indices can be specified by expressions such as 2:4, which evaluates to [2, 3, 4]. For example, a submatrix taken from rows 2 through 4 and columns 3 through 4 can be written as:**  **>> A(2:4,3:4)ans = 11 8 7 12 14 1** |