Homework #5

Scientific Computing (501125-2)

Spring 2022

Due on: Tuesday May 31, 2022, 11:59 pm via Blackboard

1. Write the if statement syntax.
2. Use TWO if statements to write a Matlab program that checks whether the entered value by a user is greater than 100 or less than or equal to 100.

(Hint use: x > 100 and x <=100)

1. Use an if-else statement to write a Matlab program that checks whether the entered value by a user is greater than 100 or less than or equal to 100.(Hint use: x > 100 and x <=100)
2. Use a nested if statement to write a Matlab program that checks the student’s grade. That is, the program asks the user to enter a random number and does the following:

* If the entered grade is greater than a 100, the program prints out that “The entered grade is invalid > 100”
* If the entered grade is between 90 and 100, the program prints out that “Your grade is A”
* If the entered grade is greater than or equal to 80 and less than 90, the program prints out that “Your grade is B”
* If the entered grade is greater than or equal to 70 and less than 80, the program prints out that “Your grade is C”
* If the entered grade is greater than or equal to 60 and less than 70, the program prints out that “Your grade is D”
* If the entered grade is greater than or equal to 0 and less than 60, the program prints out that “Your grade is F”
* Otherwise, the program prints out that “The entered grade is invalid < 0”

1. What is the benefit of using cell array?
2. What type of brackets must we use to reference cell arrays?
3. Create a 2 by 3 cell array named M and fill it with the following values

**M =**

**'a' ‘ff’ ‘cc’**

**'c' 'fff' ‘e’**

1. Create a 3 by 2 cell array named **Mix** and fill it with the following values

**M =**

**[1 2 3] ‘HELLO’ ‘TU’**

**'CIT' [22] 5**

1. Given the following Matlab command:

M = {'a',97,[4 5 6]}

M{3}

* + What is the result of M{3}?