

Session 6: Loop Statement

In-class Exercises

PART 1: "FOR" LOOP

Ex1: Write a Matlab program to display "Hello World" 10 times.

Ex2: Write a Matlab program to display "the 1 month", "the 2 month" "the 12 month".

Ex3: Write a Matlab program to display "the 1 month has 31 days", "the 2 month has 28 days", "the 3 month has 31 days", "the 4 month has 30 days" "the 12 month has 31 days".

Ex4: Write a Matlab program to plot 10 lines $y=mx$ with $m = 10, 20, 30, 40, 50, 60, \dots, 100$ on the same graph.

Ex5: Write a Matlab program to plot 10 lines $y=mx$ with $m = 10, 20, 30, 40, 50, 60, \dots, 100$ on a 2x5 figure matrix.

Ex6: Write a Matlab program to plot the following 4 points (0,3), (2,5), (4,7), (6,9) on a 4x1 figure matrix using red stars.

Ex7: Calculate the sum of all the values in **A** and save result to **addA** using a "for" loop.

A = floor(rand(1,100)*10)

Ex8: Count the total number of occurrence of 5 in the variable **A = floor(rand(1,100)*10)**.

Ex9: Assume students semester results are save in a variable **grade = floor(randi([0,100],1,50))**. Count the number of students who receive "HD", "D", "C", "P", and "F" respectively.

Ex10: Find and display the largest number in **A = floor(rand(1,10)*100)**.

PART 2: "WHILE" LOOP

Reprogram the Ex1-Ex9 using "while" loop statement.

PART 3: MATLAB GAME

Ex11: Write a Matlab program which asks users to guess a value, show users if the value is the one in your mind. Note: the game will finish only when the number is successfully guessed.