Course N°06

For-end loop

in MATLAB

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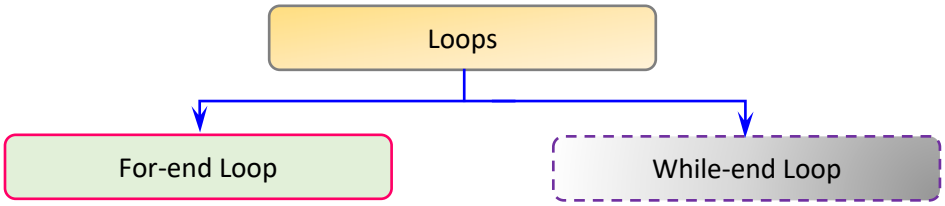
1.Loops

The loops command provides the means to repeat a series of statements with just a few lines of code. MATLAB has two ways to control number of times loop executes commands.



1.1.The For-end Loop

A for loop is a repetition control structure that allows you to efficiently write a loop that needs to execute a specific number of times. The syntax of for statement in MATLAB is:

```
for variable = start number : step : stop number
……..statements/instructions/operations …….
end
```

Note.

- There is no semicolon ";" or "." after the *for* and *end* statements.
- Process repeats itself until $k > t$.
- The loop index variable can have any variable name *(i,j,k and so on).*
- The name of the variable should not be the same as the result in the statements or the instructions.

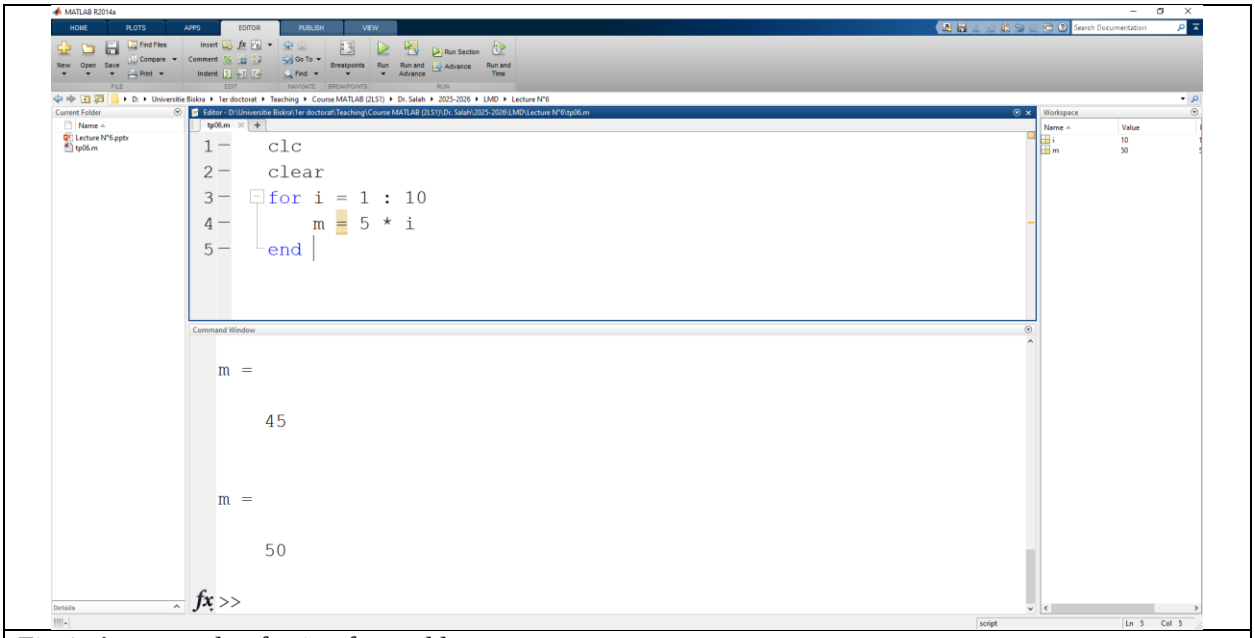


Fig 1. An example of using for-end loop

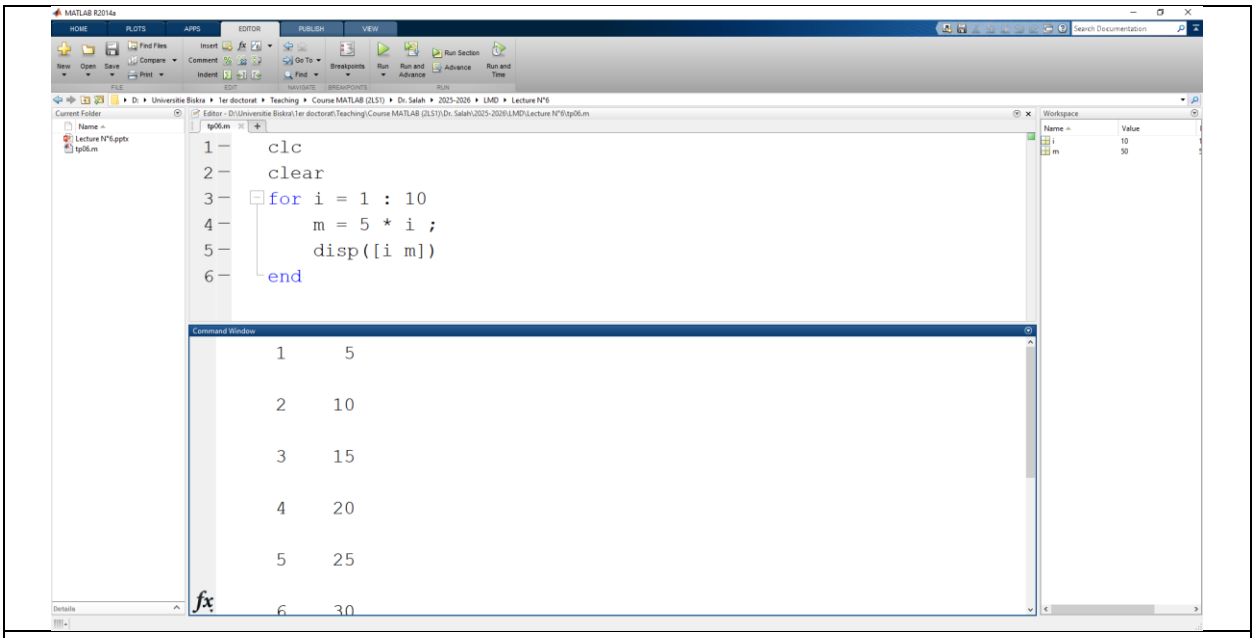


Fig 2. An example of control print result when using the loop

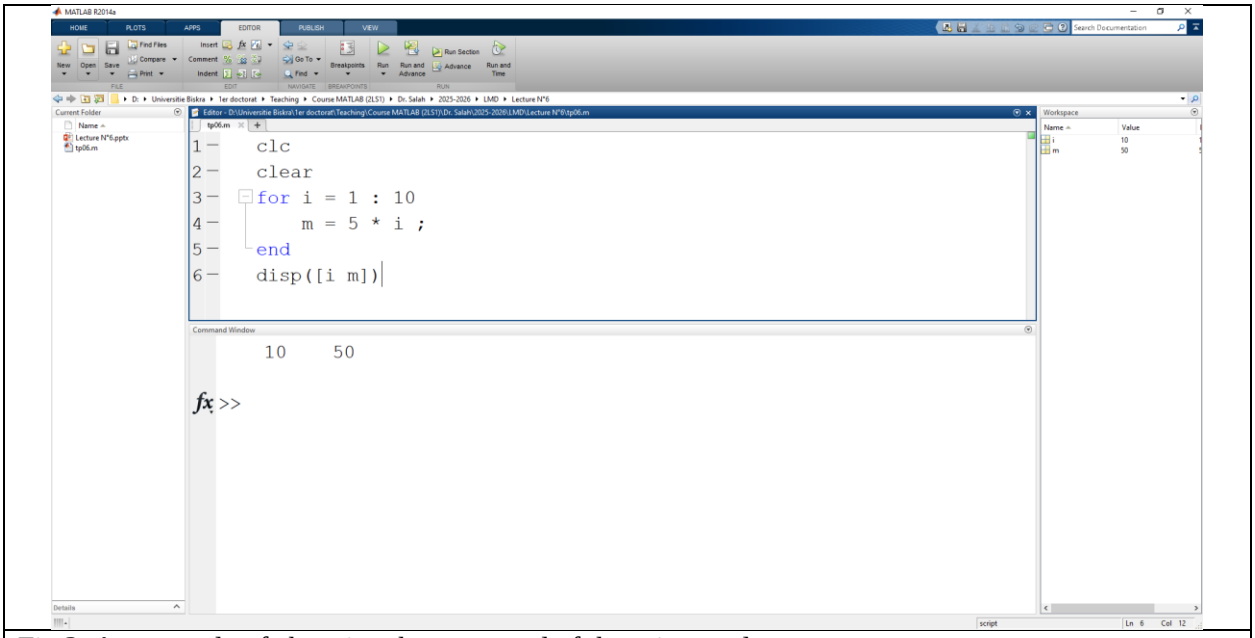


Fig 3. An example of changing the command of the print result

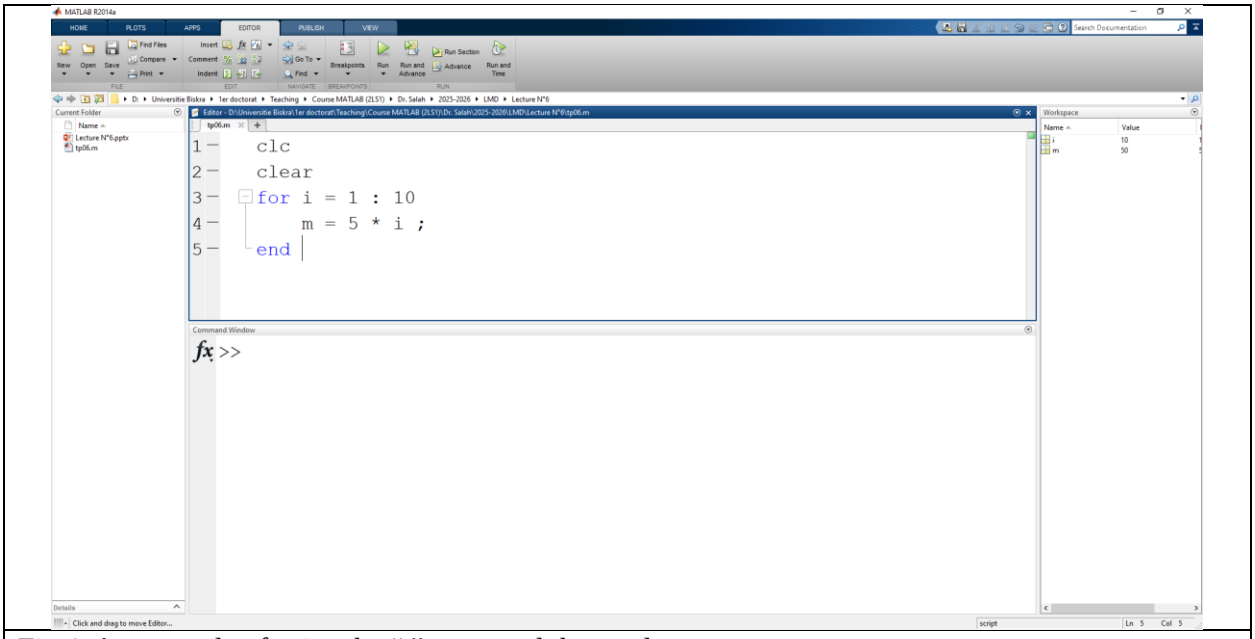


Fig 4. An example of using the ";" to control the results

2.List of References

Kattan, Peter Issa. Matlab for Beginners: A gentle approach. Petra books, 2008.

Etter, Delores M., David C. Kuncicky, and Douglas W. Hull. Introduction to MATLAB. Vol.4. Hoboken, NJ, USA: Prentice Hall, 2002.

Attaway, Stormy. Matlab: a practical introduction to programming and problem solving. Butterworth-Heinemann, 2013.

Driscoll, Tobin A. Learning Matlab. Society for Industrial and Applied Mathematics, 2009.

Butt, Rizwan. Introduction to numerical analysis using MATLAB. Laxmi Publications, Ltd.,2008.

Sigmon, Kermit. Matlab: aide-mémoire. Springer Science & Business Media, 1999.

Chapman, Stephen J. Essentials of MATLAB programming. Cengage Learning, 2016.