Script Files (M-Files)

- MATLAB allows you to write series of commands into a file and execute the file as complete unit, like writing a function and calling it.

MATLAB allows writing two kinds of program files:

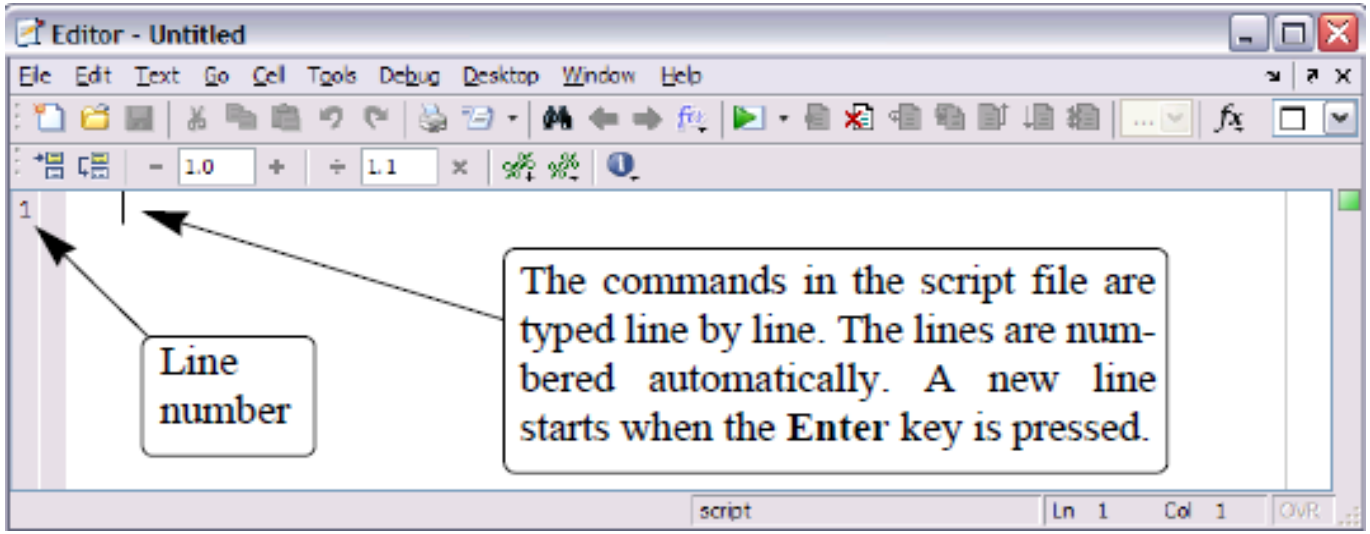
1- **Scripts -** script files are program files with **.m** extension. In these files, you write series of commands, which you want to execute together.

2- **Functions -** functions files are also program files with .m extension

- A script file is a sequence of MATLAB commands, also called a program.
- When a script file runs (is executed), MATLAB executes the commands in the order they are written just as if they were typed in the Command Window.
- When a script file has a command that generates an output (e.g., assignment of a value to a variable without a semicolon at the end), the output is displayed in the Command Window.
- Using a script file is convenient because it can be edited (corrected or otherwise changed) and executed many times.
- Script files can be typed and edited in any text editor and then pasted into the MATLAB editor.
- Script files are also called **M-files** because the extension **.m** is used when they are saved.

To create scripts files, you need to use a text editor.

Choose NEW → Script. This also opens the editor and creates a file named Untitled.



- Before a script file can be executed it has to be saved. This is done by choosing Save As... from the File menu. The rules for naming a script file follow the rules of naming a variable (*must begin with a letter, can include digits and underscore, no spaces*).

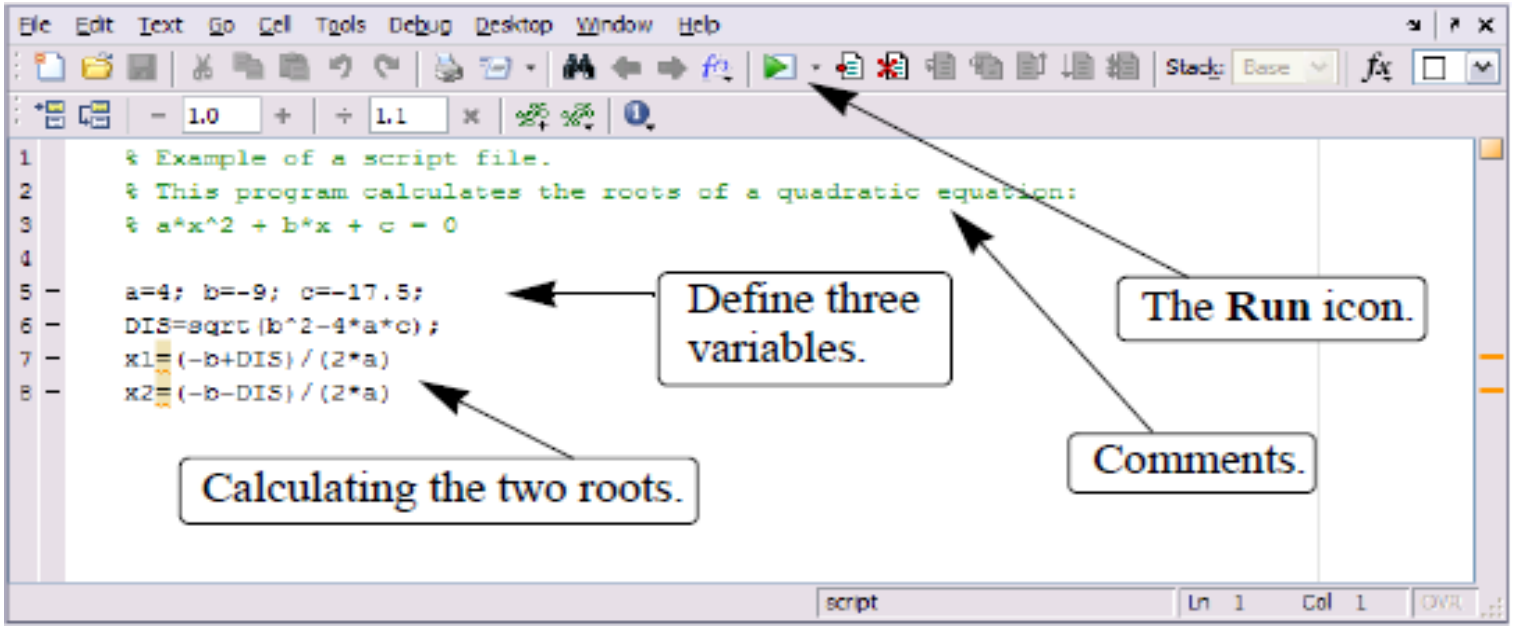
- After creating and saving the file, you can run (**Executing**) it in two ways:

1- Clicking the Run button on the editor window 

2- Just typing the filename (without extension) in the command prompt: >> prog1

The command window prompt displays the result:

An example of a short program typed in the Editor/Debugger Window



Example

- Create a script file, save it , and type the following code:

a =5; b =7;

c = a + b

d = c + sin(b)

e =5* d

f = exp(-d)

Then see the result?