Laboratory Work 1

1. **Starting Scilab:**

a) Download and install the latest version of Scilab from the official website.

b) Launch Scilab on your computer.

c) Take a screenshot of the main Scilab window and add it to your report.

d) Use the **doc** command to get information on the following commands: **who**, **who_user**, **whos**.

e) Capture the screen displaying the detailed description of the **whos** command in the help window.

f) Use the **apropos** command to search for the command related to creating a complex number.

g) Capture the screen showing the command suggested by Scilab.

2. **Creating variables:**

a) Open Scilab.

b) Create a variable **pi** and assign it the value of π (3.14159265359) using **%pi**.

c) Create a second variable **radius** and assign it a radius of your choice.

d) Use these two variables to calculate the circumference of a circle.

e) Display the result in the console.

f) Create a variable **z1** containing a complex number of your choice.

g) Create a second variable **z2** containing another complex number of your choice.

h) Perform a complex arithmetic operation using these two variables.

i) Display the result in the console.

3. <u>Working directory:</u>

a) Open Scilab.

b) Use the **pwd** command to display the current working directory.

c) Create a new folder on your computer.

d) Use the **cd** command to change the working directory to the new folder you just created.

e) Use the **pwd** command again to confirm that you are now in the new directory.

f) Capture the screen showing the path of the new working directory.

4. <u>Saving the workspace:</u>

a) Open Scilab.

b) Create three variables with values of your choice.

c) Use the **save** command to save these variables in a file with a custom name.

d) Use the **quit** command to exit Scilab.

e) Open Scilab again, **load** only the first two variables from the file, and display their values.

f) Ensure that the third variable has not been loaded.

5. <u>Functions and Commands:</u>

1. Open Scilab.

2. Use the `complex` function to create a complex number of your choice.

3. Display the result in the console.

4. Describe the functionality of each of the following commands: `edit`, `exec`, and `abort`.