



CS1011: Computer Programming in Python

1st Trimester 1447 AH

Lab 01

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Objectives

- Download and install Anaconda Navigator and Jupyter Notebook (current version)
- Write simple Python scripts:
 - “Hello, World!”
 - Basic arithmetic
 - User input/output

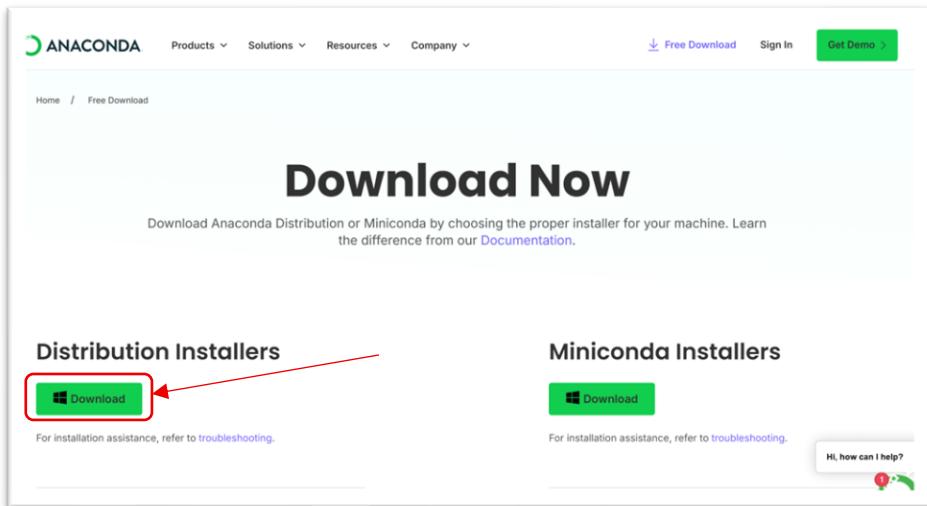
PART 1: Setting Up Python Development Environment

1.1) Downloading and Installing Anaconda Navigator and Jupyter Notebook

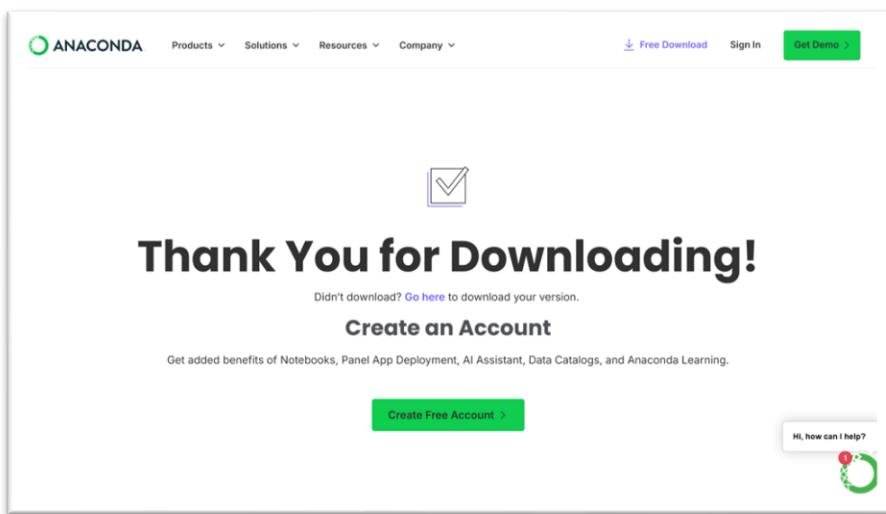
1. Go to the Anaconda website: <https://www.anaconda.com/download>
2. Click on the “Skip registration” link

The screenshot shows the Anaconda website's distribution page. At the top, there's a navigation bar with links for Products, Solutions, Resources, Company, Free Download, Sign In, and Get Demo. Below the navigation, there's a large heading 'Distribution'. To the right of the heading is a 'Free Download' box with the text 'Get access in 30 seconds. Completely free.*'. It contains two buttons: 'Get Started' and 'Returning Users'. Below these buttons is a small note about terms and conditions. A red arrow points from the bottom left towards the 'Skip registration' button, which is located at the bottom right of the download box.

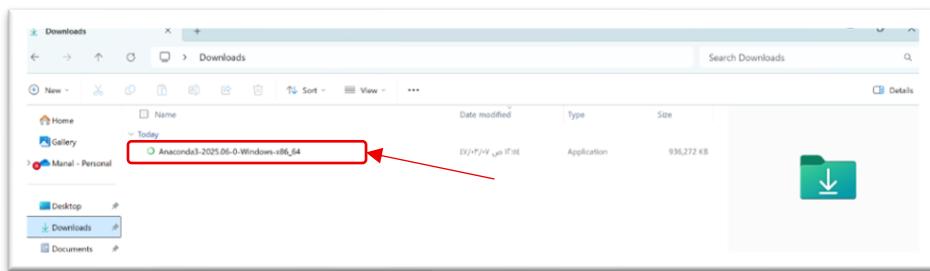
3. Click on the “Download” button under the (Distribution Installers)



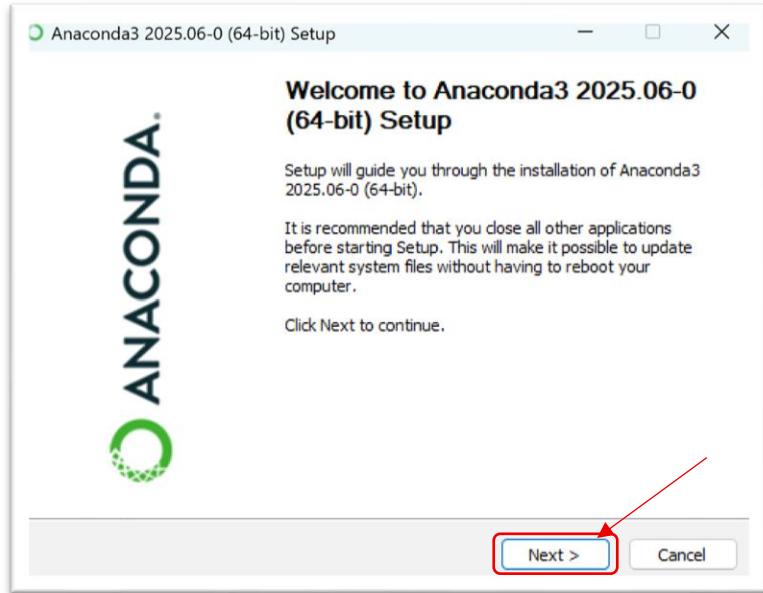
4. The download will start and you will be forwarded into the following “Thank You” page.



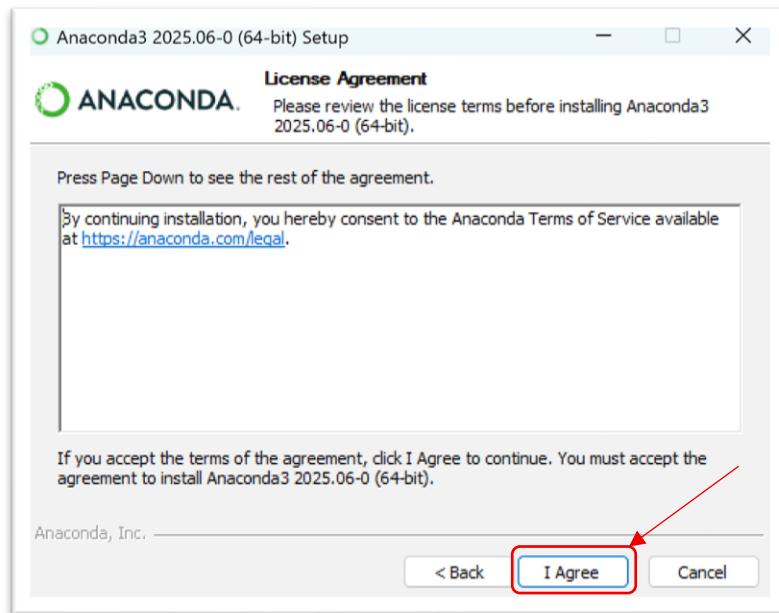
5. Wait till the full executable file downloaded on your PC. Then, open your downloads folder and double click on the application to start the installation process.



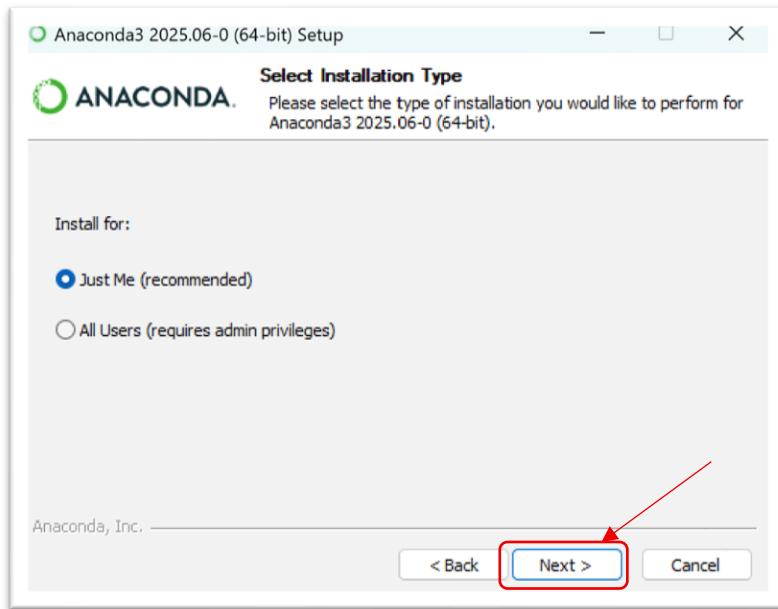
6. After the setup wizard open, click on the “Next” button.



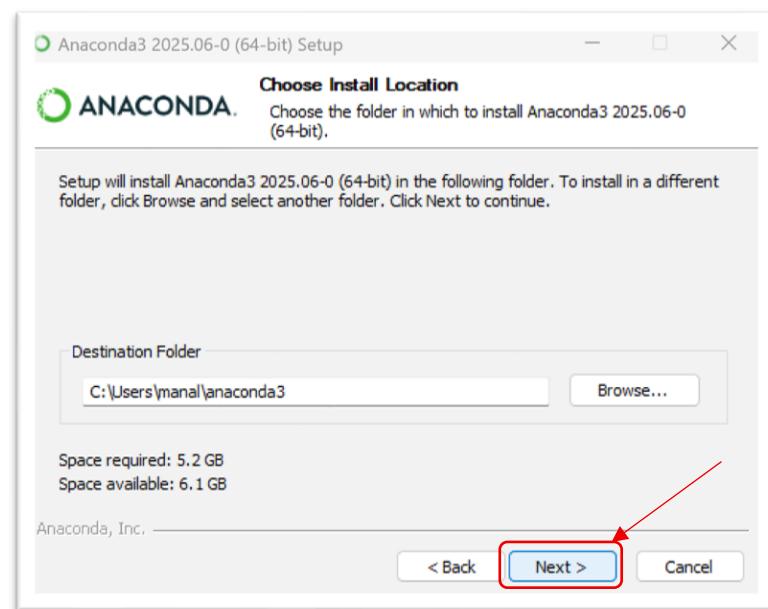
7. Click on the “I Agree” button



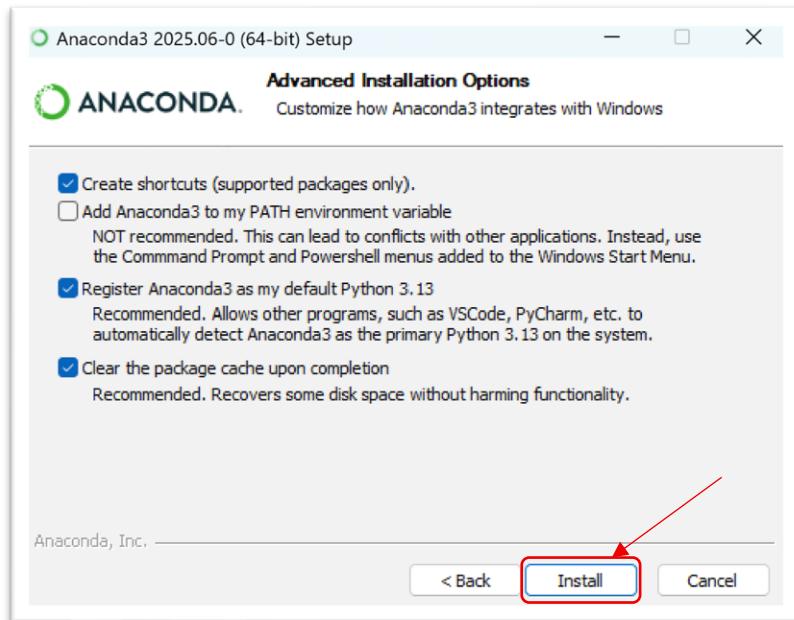
8. Keep the install for “Just Me” option. Then, click on the “Next” button.



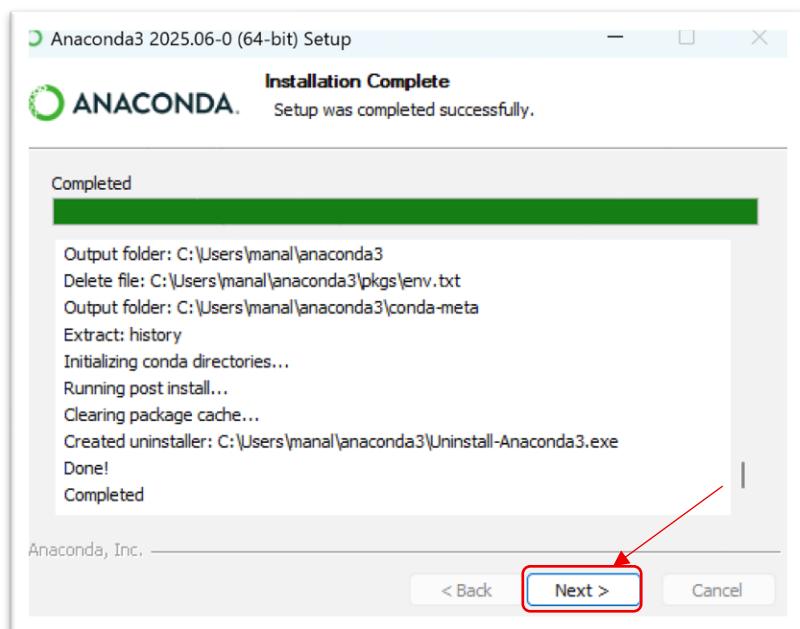
9. Keep the default installation location as it is and click “Next”.



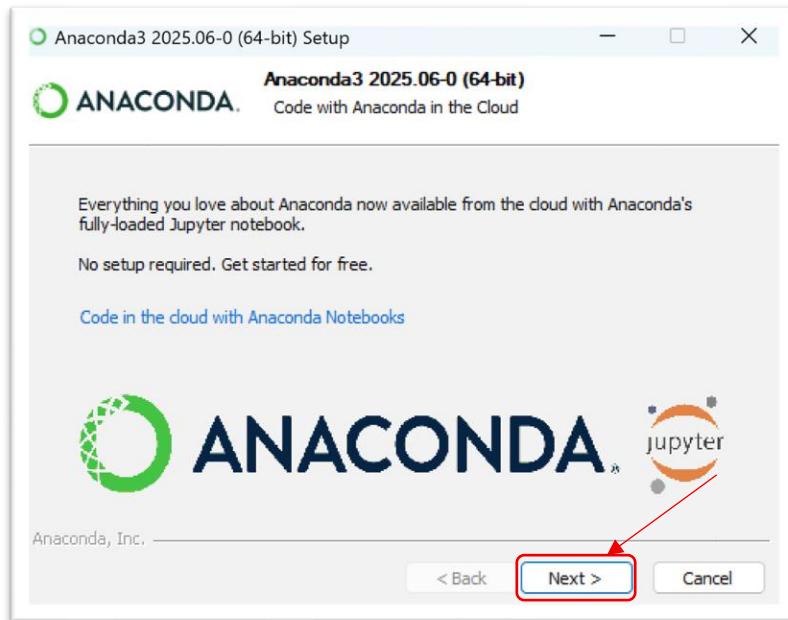
10. Check the “Create shortcuts, Register Anaconda3, and clear the package cache” options. Then, click on the “install” button.



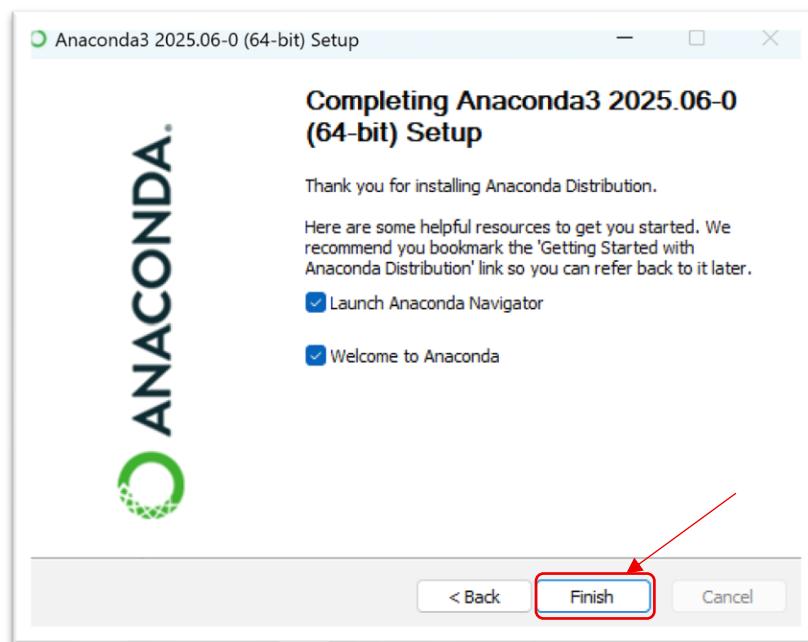
11. Wait till the installation complete. Then, click on the “Next” button.



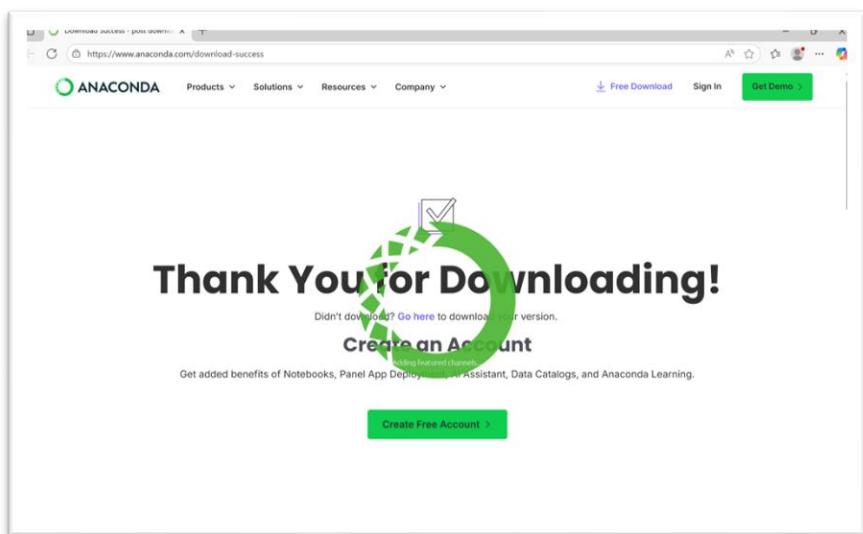
12. Click again on the “Next” button.



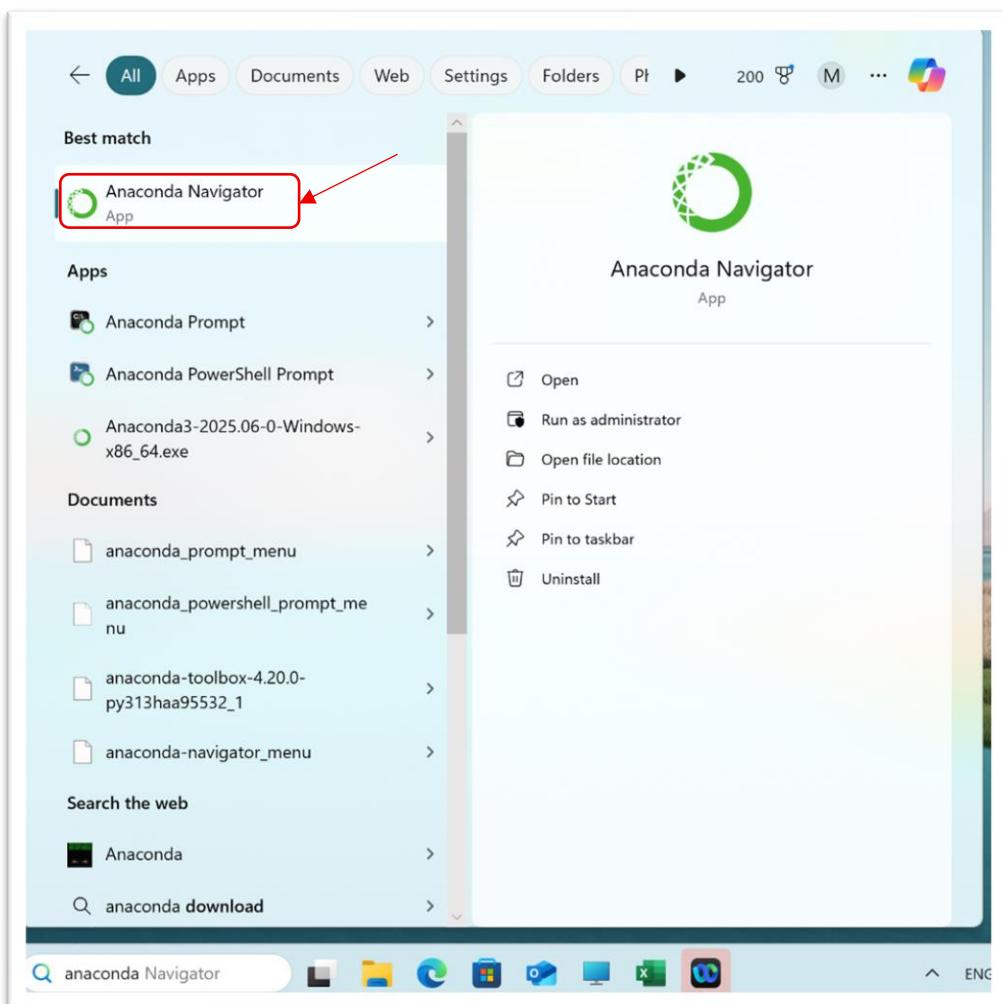
13. Keep “Launch Anaconda Navigator” and “Welcome to Anaconda” checked and click “Finish”.



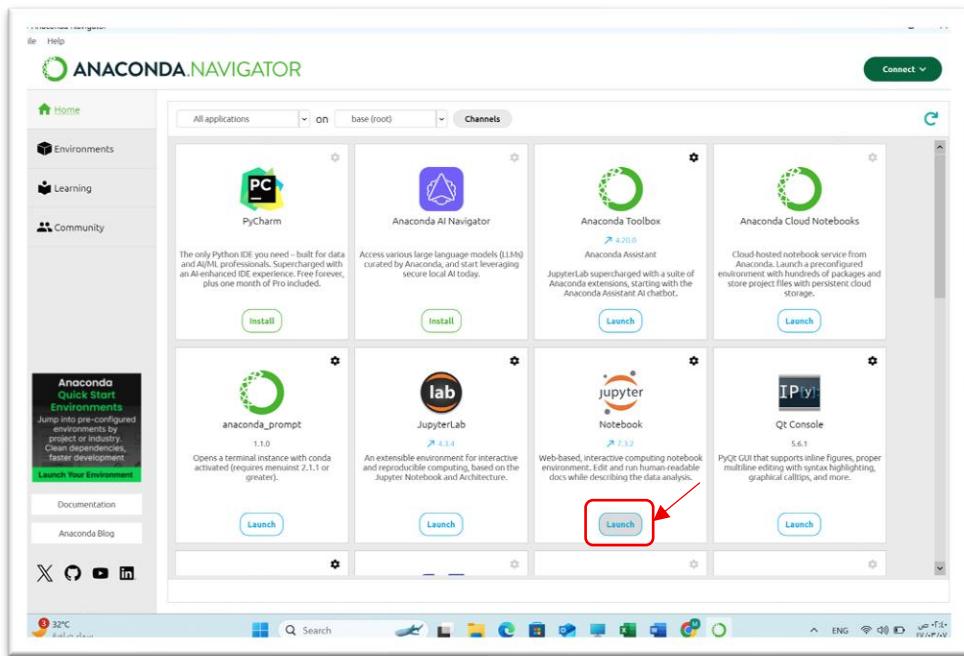
14. Wait more few minutes till all the required featured channels added. Then, it is recommended to restart your PC.



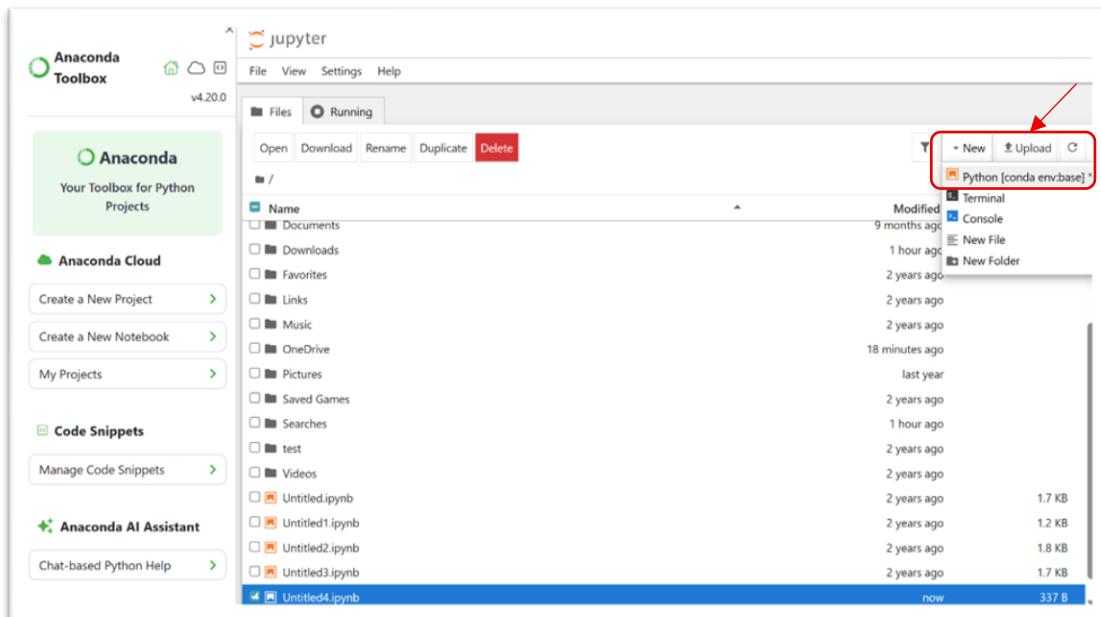
15. After successfully rebooting your system, simply type “anaconda” on the search bar and click on the “Anaconda Navigator” application.



16. Wait till the application loaded. Then, lunch the “Jupyter Notebook”



17. The Jupyter Notebook will be lunched on your browser. Click on “New → Python” to open a new notebook for coding.

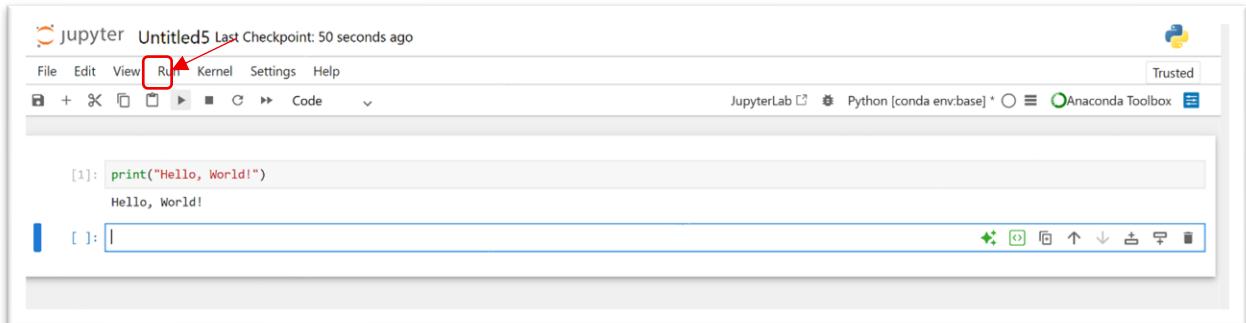


PART 2: Write simple Python scripts

2.1) Write statement that prints “Hello, World!” on the output screen

After the new Jupyter Notebook is opened, write this simple statement
`print("Hello, World!")`

Then, click on the run button or (Shift+Enter) to see the result.



2.2) Write a program that adds two numbers and prints the result.

A screenshot of a Jupyter Notebook cell. The cell number is [1]. The code is:

```
[1]: n1=3  
n2=4  
sum=n1+n2  
print(sum)
```

The output of the cell is the number 7.

You can modify above code to take the numbers from the user using the `input()` method. Note that, you should use either the `int()` or the `float()` functions to make sure that the entered values are valid numbers.

A screenshot of a Jupyter Notebook cell. The cell number is [4]. The code is:

```
[4]: n1=float(input("Enter the first number: "))  
n2=float(input("Enter the second number: "))  
sum=n1+n2  
print("The sum = ",sum)
```

The output of the cell shows the interaction:

```
Enter the first number: 3.5  
Enter the second number: 7  
The sum = 10.5
```

2.3) Define three variables (name, age, and tall). Then, use the input() method to read the data from the user. Finally, use the print() method to display the entered data. Note: use suitable prompt messages in input and output functions.

```
[5]: name = input("Enter your name: ")
age = input("Enter your age: ")
tall = input("Enter your tall in cm: ")
print ("Welcome " + name + "!")
print ("Your age is: " + age)
print ("While, your tall is: " + tall + " cm.")
```

```
Enter your name: Sara
Enter your age: 22
Enter your tall in cm: 157
Welcome Sara!
Your age is: 22
While, your tall is: 157 cm.
```