جامعة أم القرى
UMM AL-QURA UNIVERSITY

# CS1011: Computer Programming in Python

## 1st Trimester 1447 AH

## Lab 01

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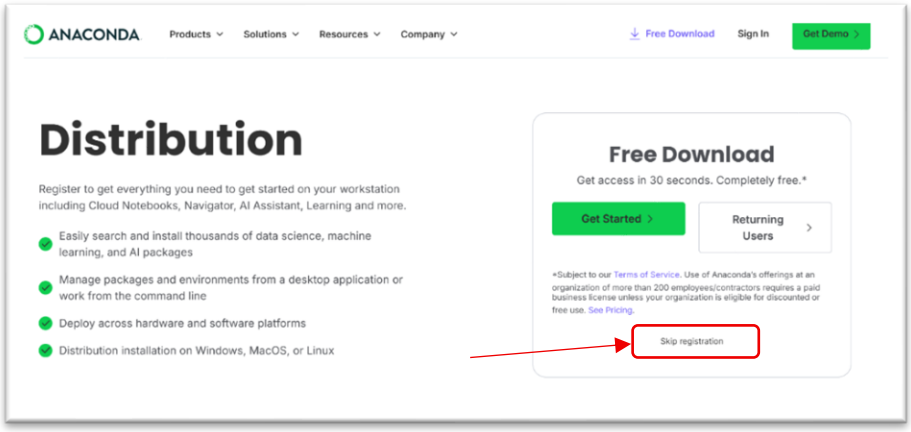
## Objectives

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

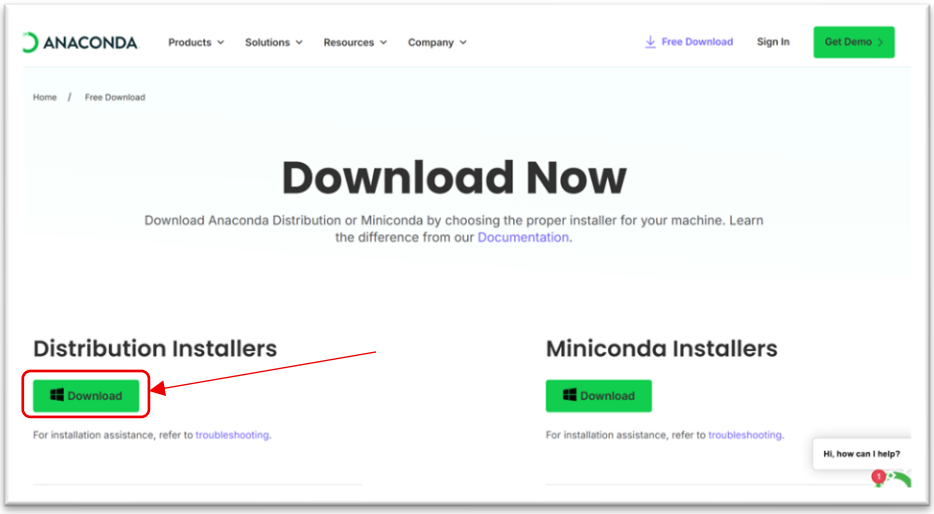
# PART 1: Setting Up Python Development Environment

## 1.1) Downloading and Installing Anaconda Navigator and Jupyter Notebook

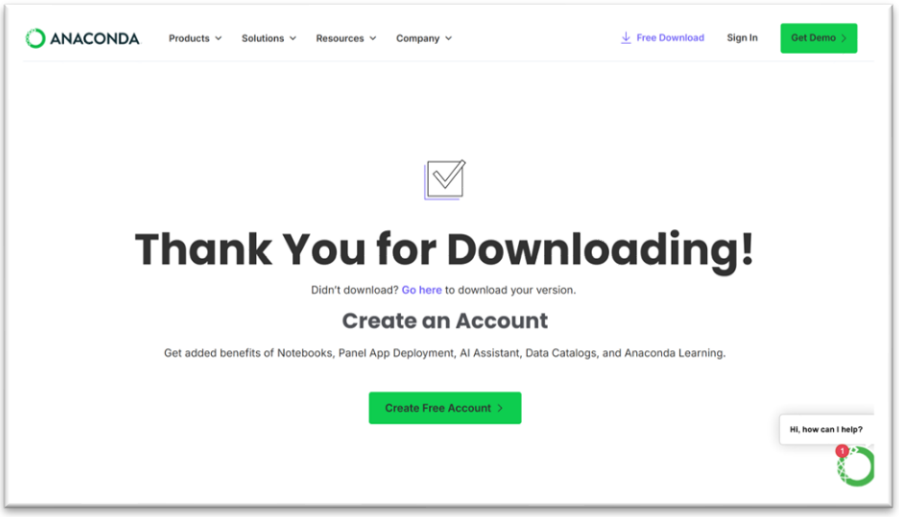
1. Go to the Anaconda website: https://www.anaconda.com/download
2. Click on the "Skip registration" link



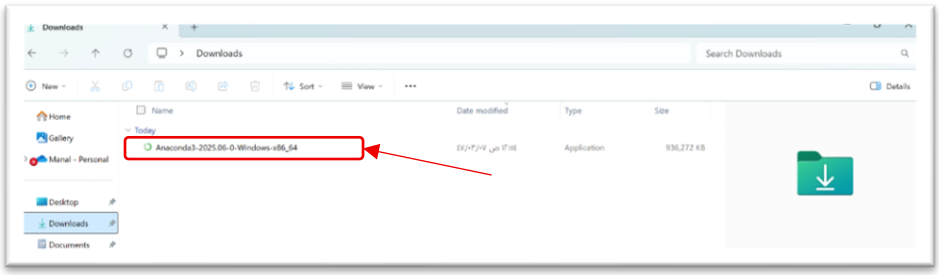

3. Click on the "Download" button under the (Distribution Installers)



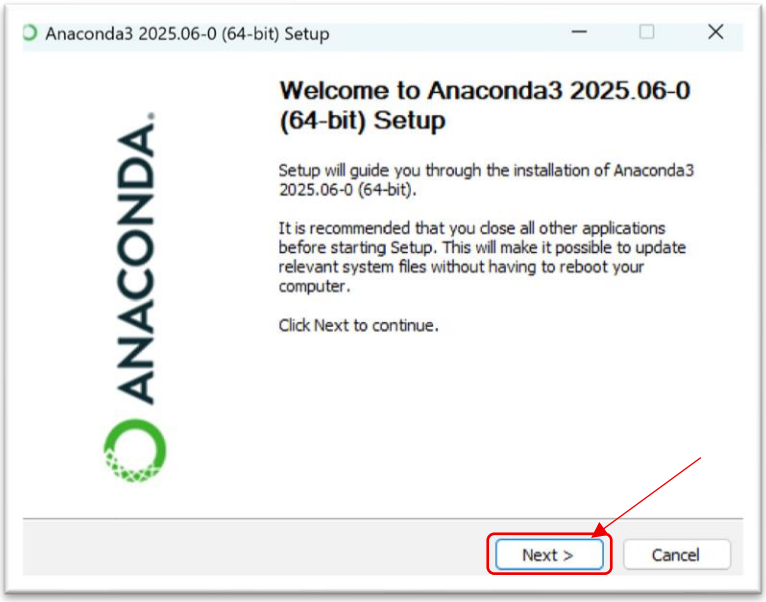

4. The download will start and you will be forwarded into the following “Thank You” page.



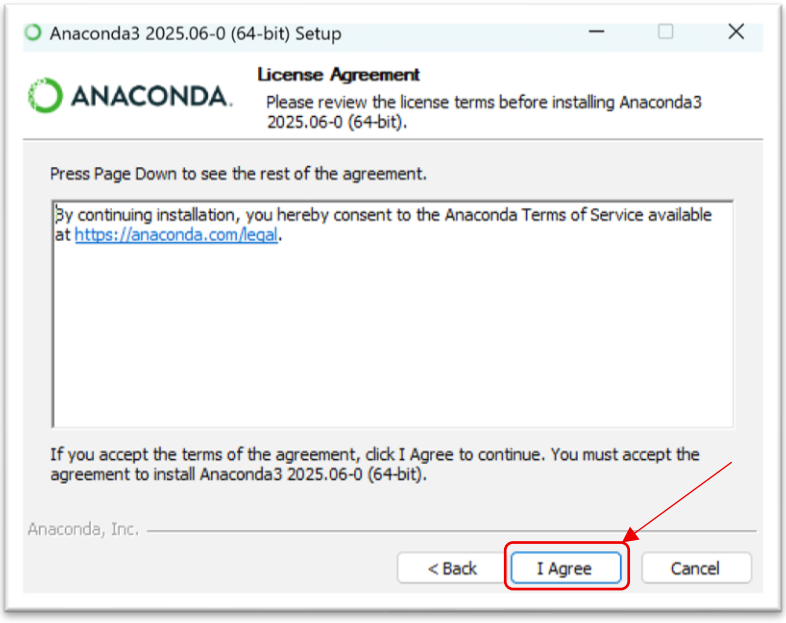

5. Wait till the full executable file downloaded on your PC. Then, open your downloads folder and double click on the application to start the installation process.



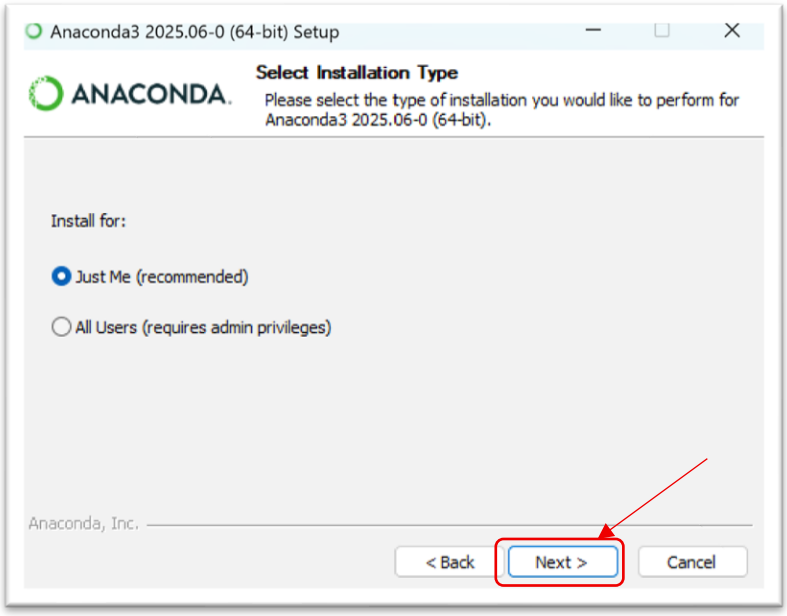

6. After the setup wizard open, click on the “Next” button.



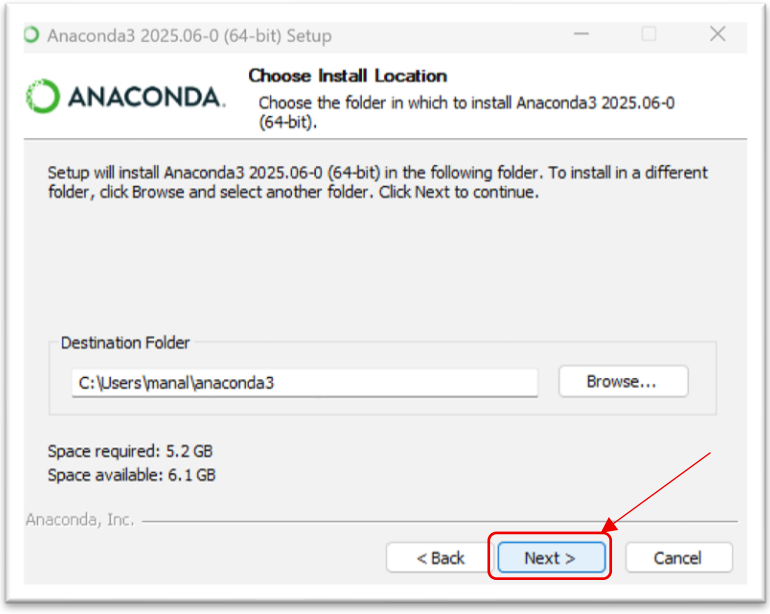

7. Click on the “I Agree” button



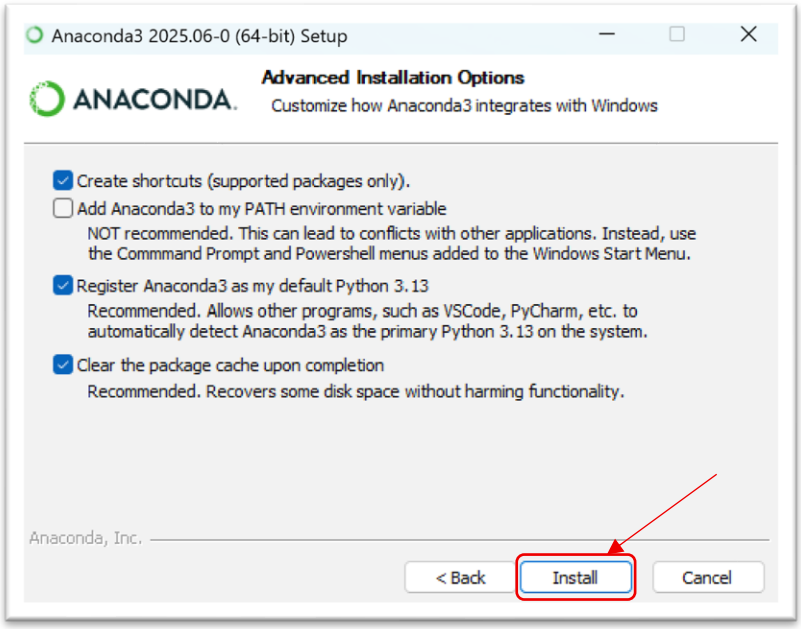

8. Keep the install for “Just Me” option. Then, click on the “Next” button.



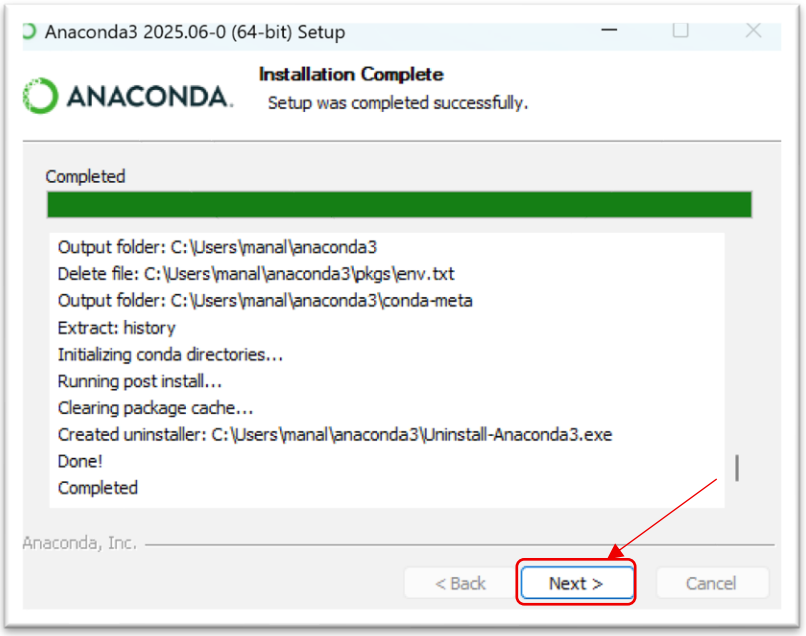

9. Keep the default installation location as it is and click “Next”.



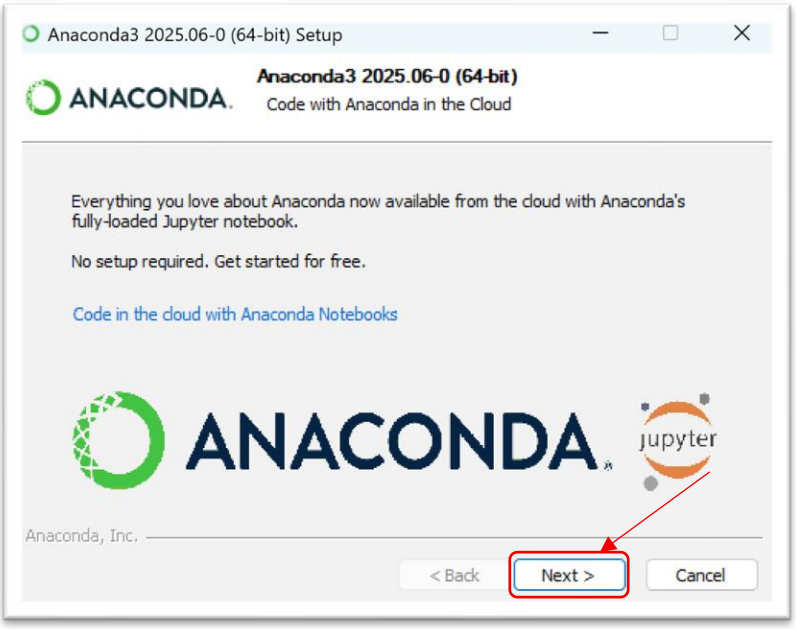

10. Check the “Create shortcuts, Register Anaconda3, and clear the package cache” options. Then, click on the “install” button.



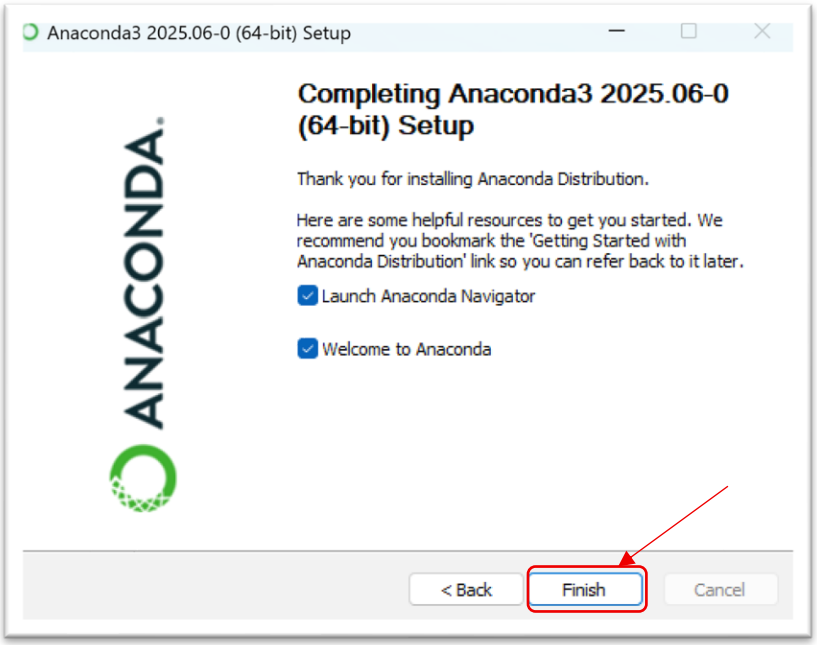

11. Wait till the installation complete. Then, click on the “Next” button.



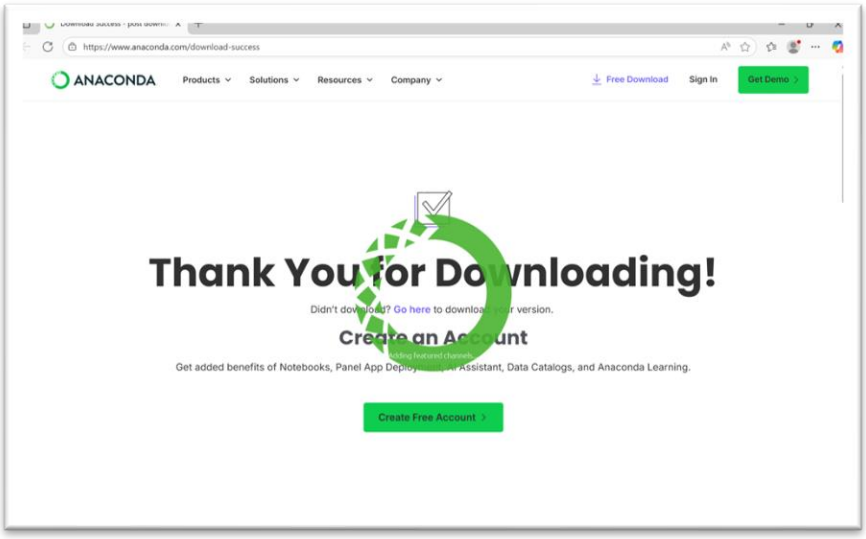

12. Click again on the “Next” button.



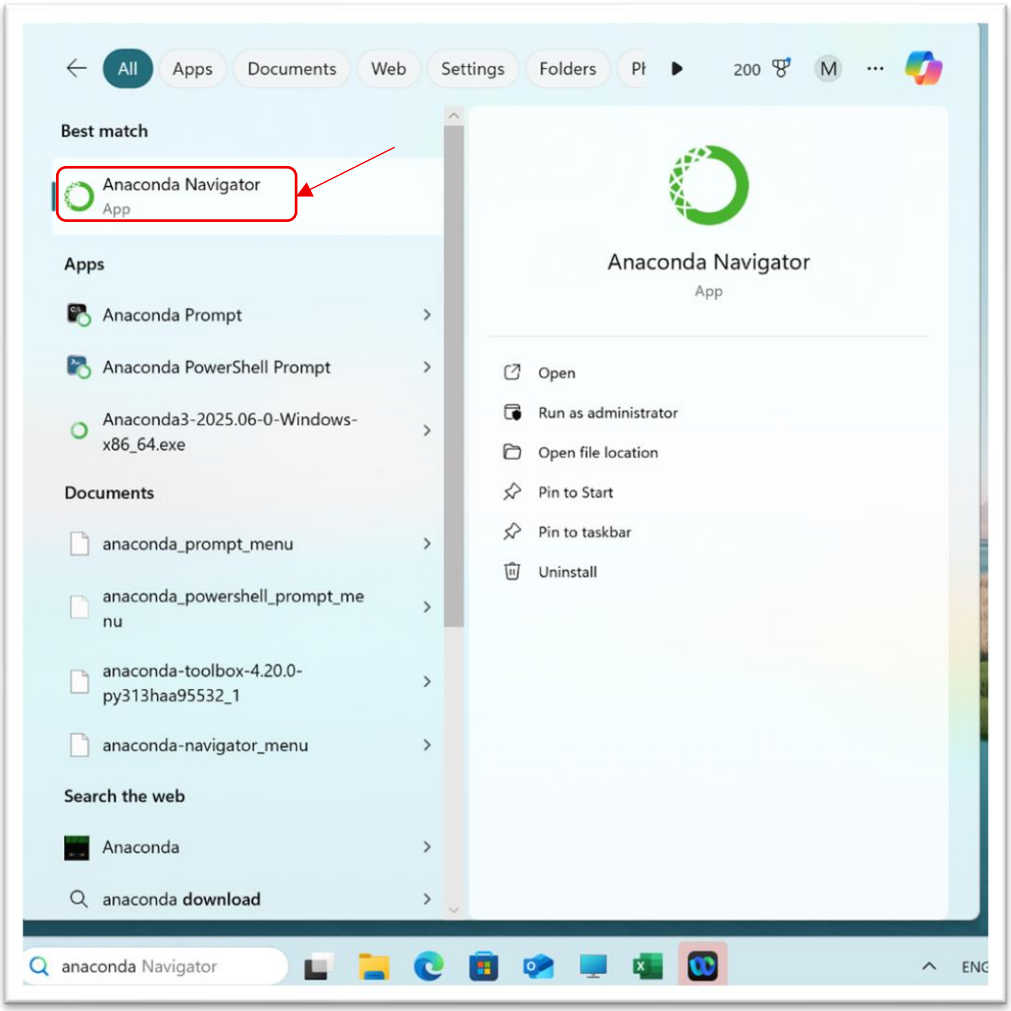

13. Keep “Launch Anaconda Navigator” and “Welcome to Anaconda” checked and click “Finish”.



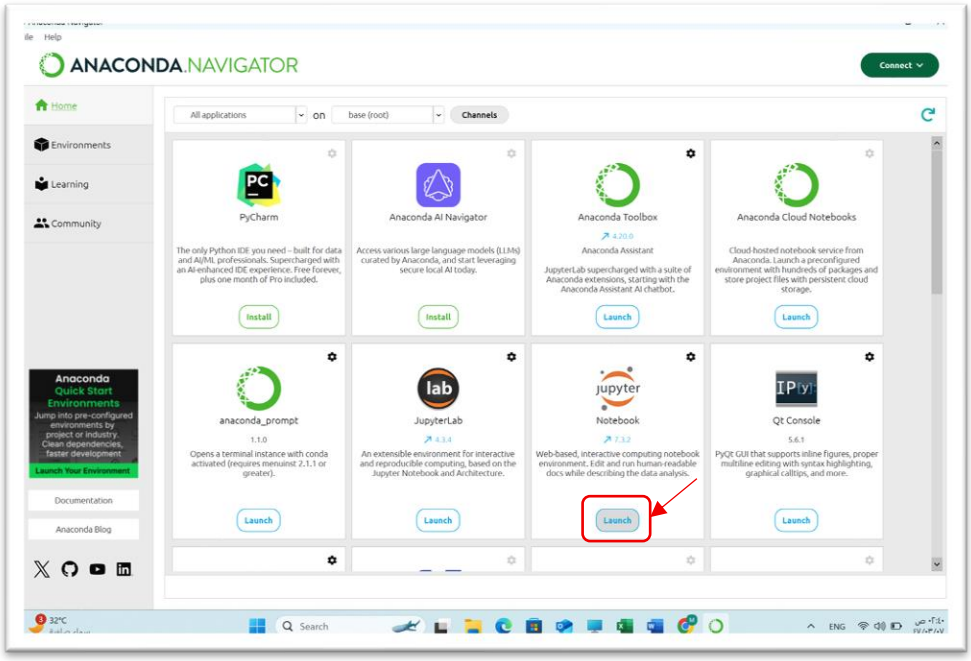

14. Wait more few minutes till all the required featured channels added. Then, it is recommended to restart your PC.



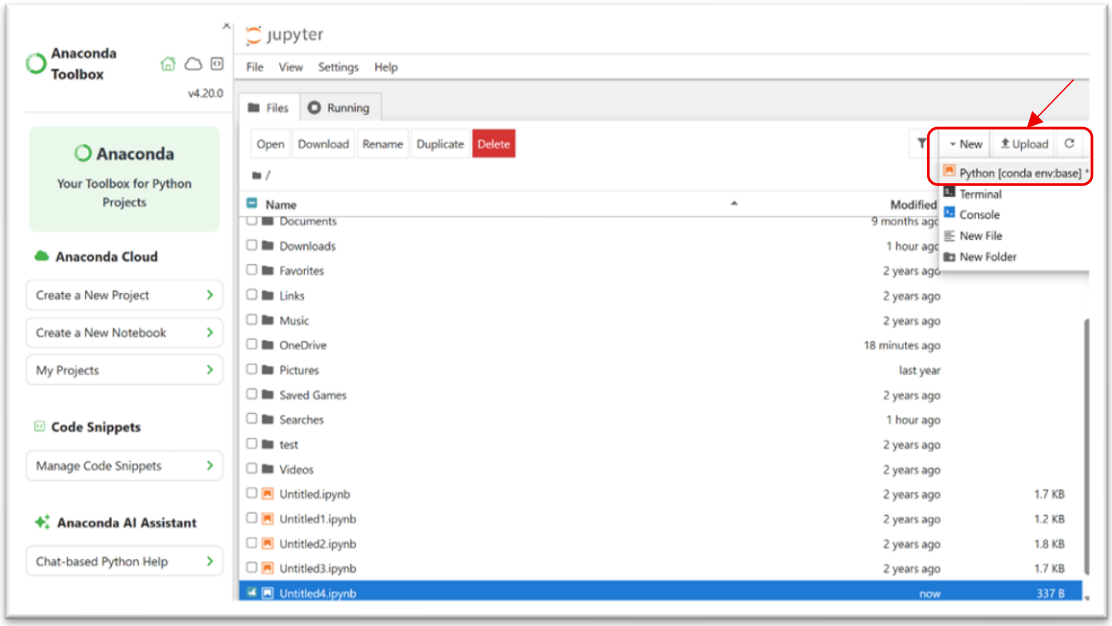

15. After successfully rebooting your system, simply type “anaconda” on the search bar and click on the “Anaconda Navigator” application.



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.



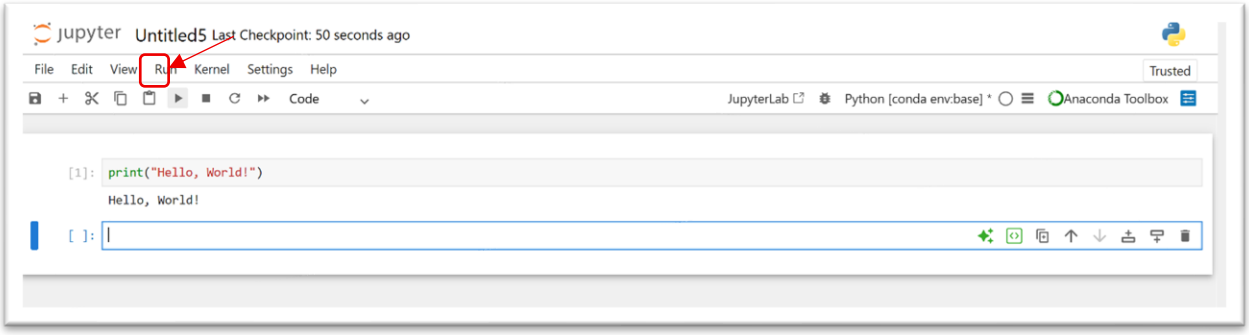

# PART 2: Write simple Python scripts

## 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.

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

     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.

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

     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.
```