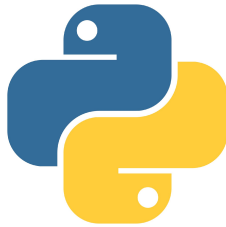


# Artificial Intelligence

Usama Asif – BSCS – Lahore Garrison University

Artificial Intelligence Section C – Week 1

# What is python?



# AGENDA

- What is Python?
- Why is Python popular?
- Features of Python?
- Where is Python used in the industry?
- Learning Path.
- Career Opportunities.
- IDE
- Advantages of using an IDE
- Anaconda3 Installation
- Python Programming



**DATA SCIENCE  
with PYTHON**

# What is python?

Python is a general purpose, high level, interpreted language with easy syntax.

Created by Guido Van Rossum in 1989.

# Why is Python popular?

In the data industry, Python is a widely used language because it combines ease of use with powerful capabilities.

- Easy ( Python is the language preferred by beginners and pros alike.)
- Free ( Python is an open-source language which makes it free for everyone to use)
- Applications (Python can be used for desktop, web, mobile application development)
- Library and Support (Python has a great community who constantly make libraries and help those in need )

# Features of Python

- Simplicity
- Open Source
- Portability
- Interpreted
- Huge Libraries
- Object Oriented

# Where is Python used in the industry?

The popular YouTube video sharing system is largely written in Python



Google makes extensive use of Python in its web search system



Dropbox storage service codes both its server and client software primarily in Python



The Raspberry Pi single-board computer promotes Python as its educational language



## COMPANIES USING PYTHON



BitTorrent peer-to-peer file sharing system began its life as a Python Program



NASA uses Python for specific Programming Task



The NSA uses Python for cryptography and intelligence analysis

**NETFLIX**

Netflix and Yelp have both documented the role of Python in their software infrastructures

# Learning Path

- Where do I start with Python?
- Python Basics
- Variables, Data Types, Operators
- Arrays
- Flow control
- File Handling
- OOPS (object Oriented)
- Practice Programming



# Career Opportunities

- Game Development
- Big Data
- Data Science / AI
- Smart Devices

# What is an IDE?

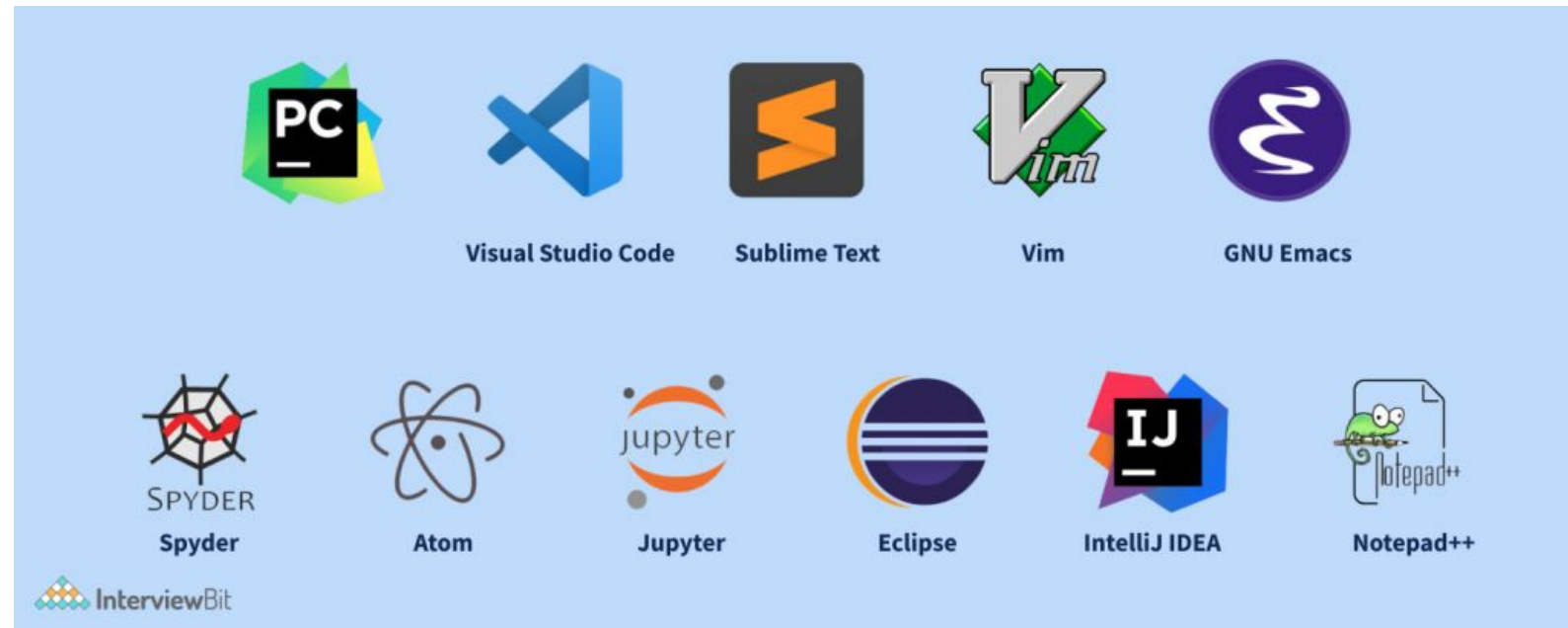
- An IDE is a software suite that consolidates basic tools required to write and test software.
- IDE ( integrated development environment)

# Advantages of using an IDE

- Code Insight
- Better Readability
- Debugger
- Resource Management
- Increased Efficiency
- Collaboration
- Project Management

# Installation and Developments Environments

- Installing python is very straightforward
- Google colab, Jupyter Notebook
- There are lot of environments you can use.



# Anaconda 3

Anaconda is a software package that provides multiple environments. Within Anaconda, we often use Jupyter Notebook, which is a widely used integrated development environment (IDE).

# Anaconda3 Installation

Step1:



download anaconda 3



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Anaconda

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Deploy across hardware and software platforms. **Download** **Download**. **Download** for Mac (Intel); **Download** for Mac (M1/M2/M3). Get Additional Installers | |.

Step2:



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Anaconda Distribution

# Free Download

Everything you need to get started in data science on your workstation.

- ✓ Free distribution install
- ✓ Thousands of the most fundamental DS, AI, and ML packages
- ✓ Manage packages and environments from desktop application
- ✓ Deploy across hardware and software platforms

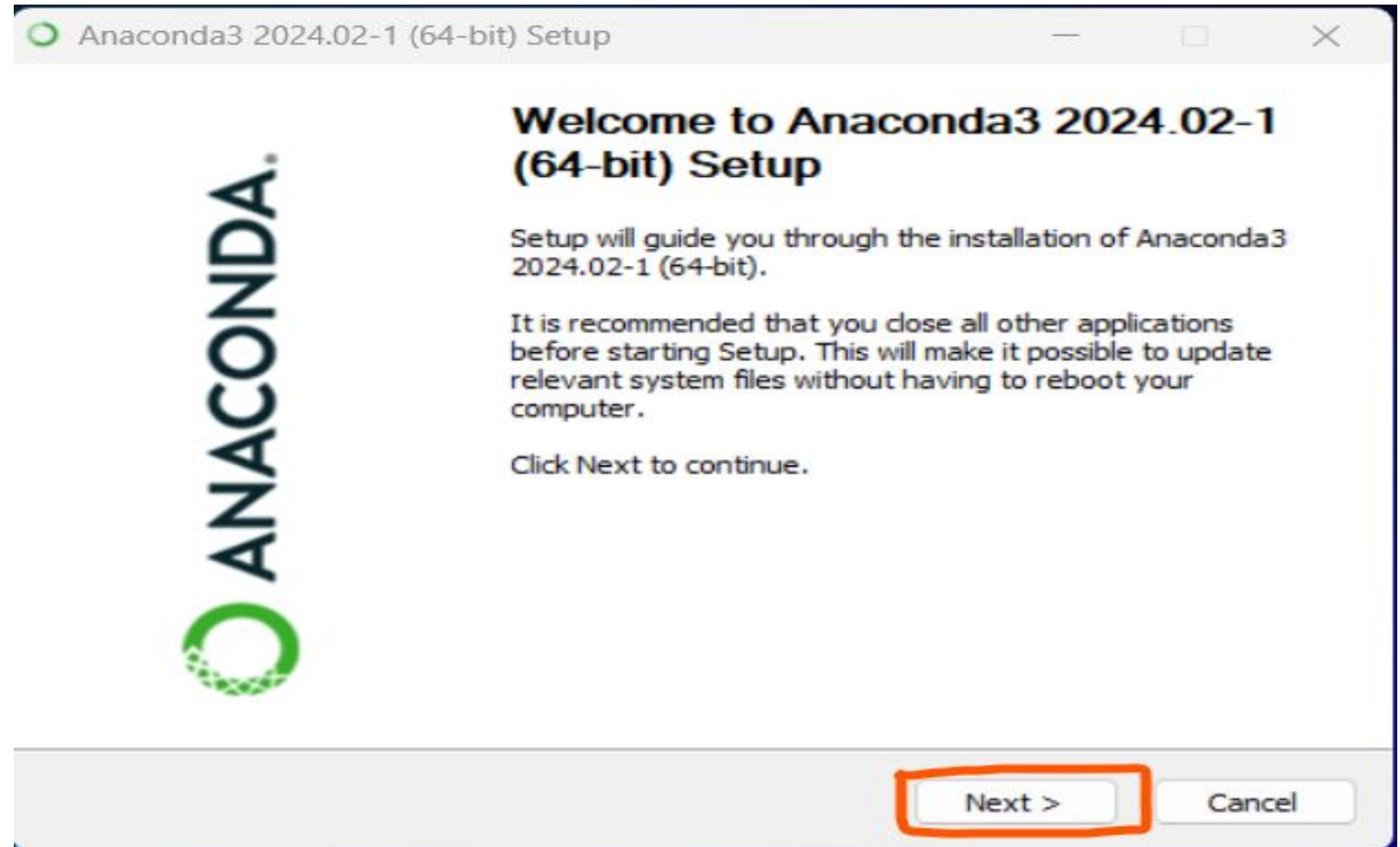
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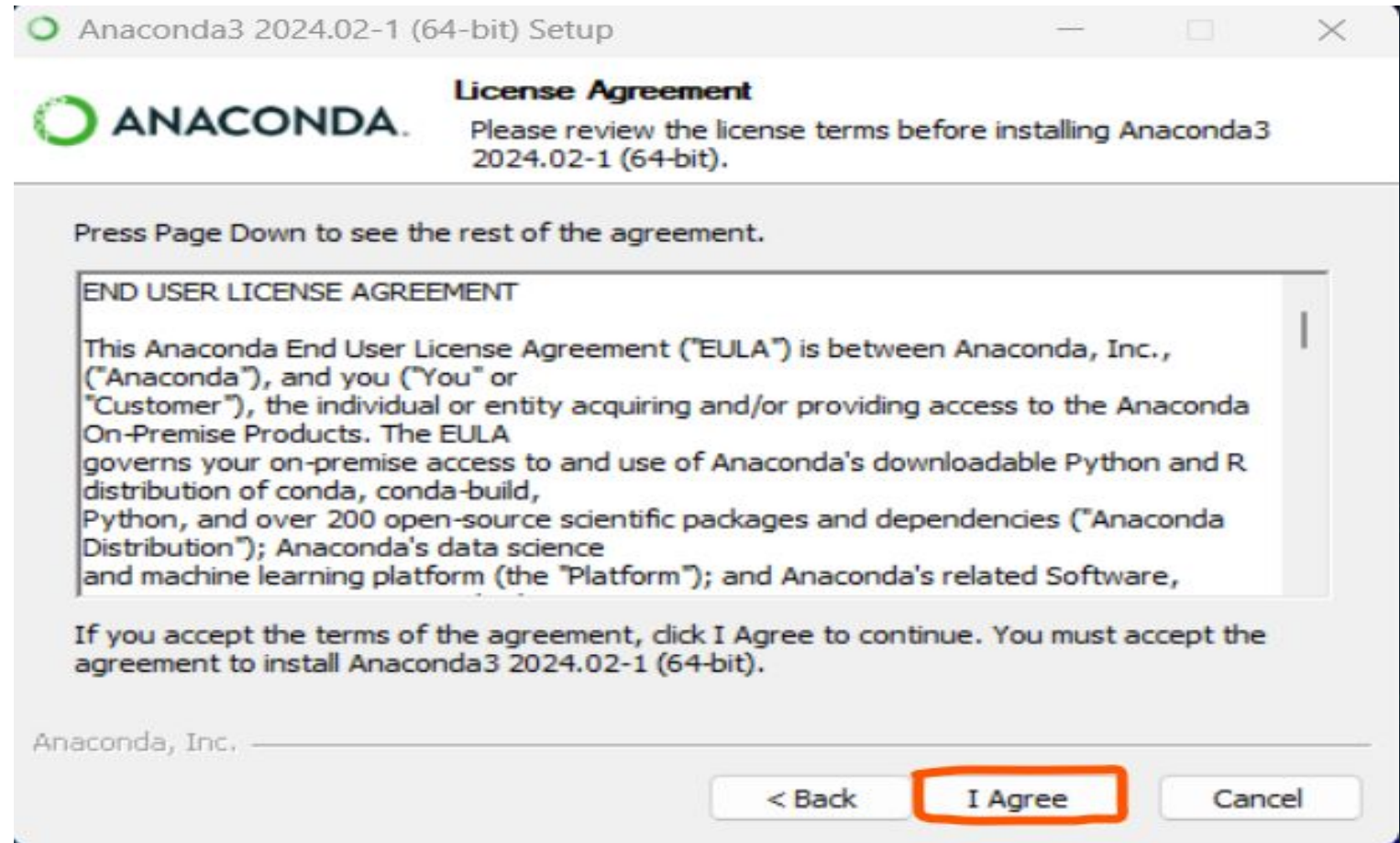




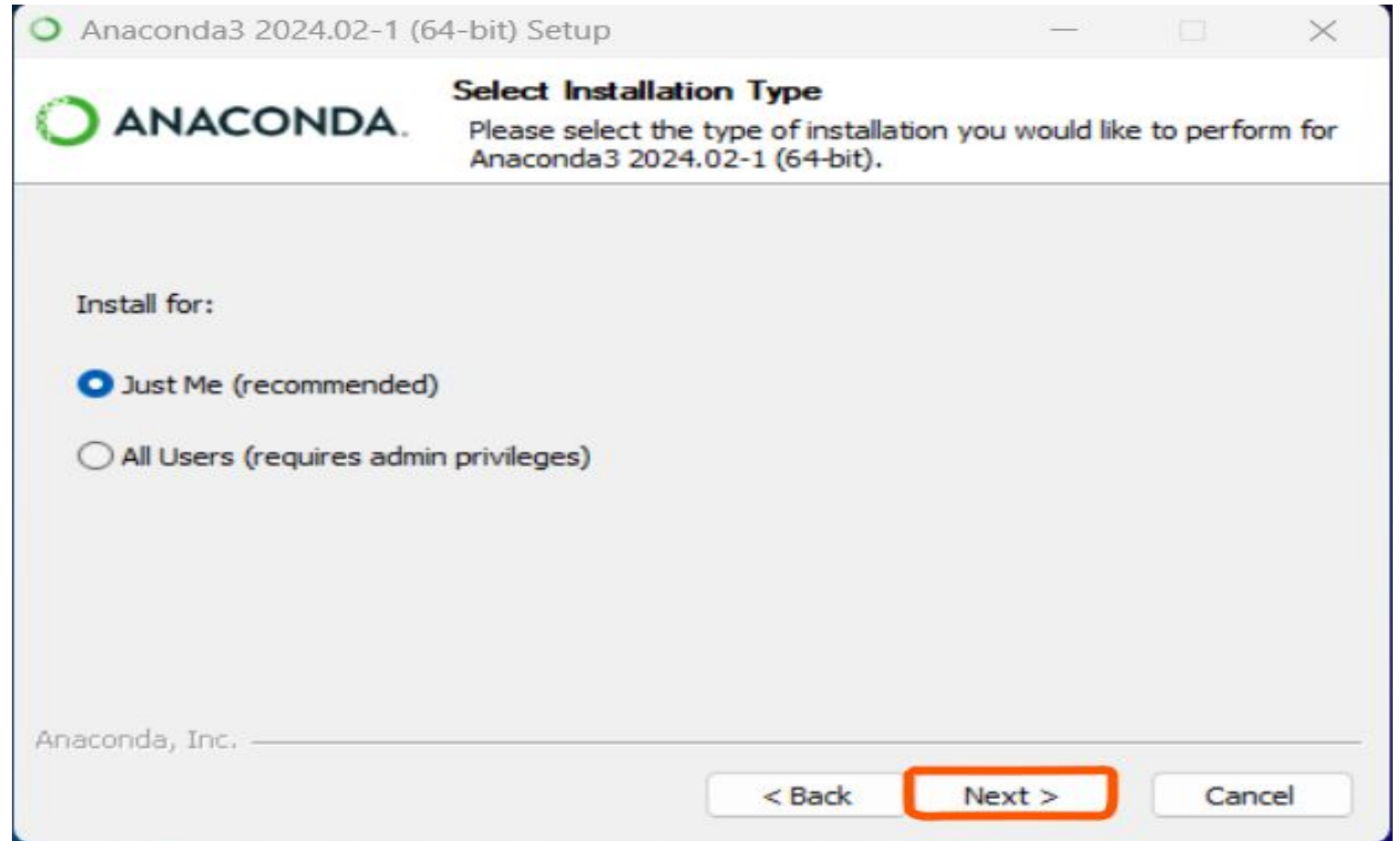
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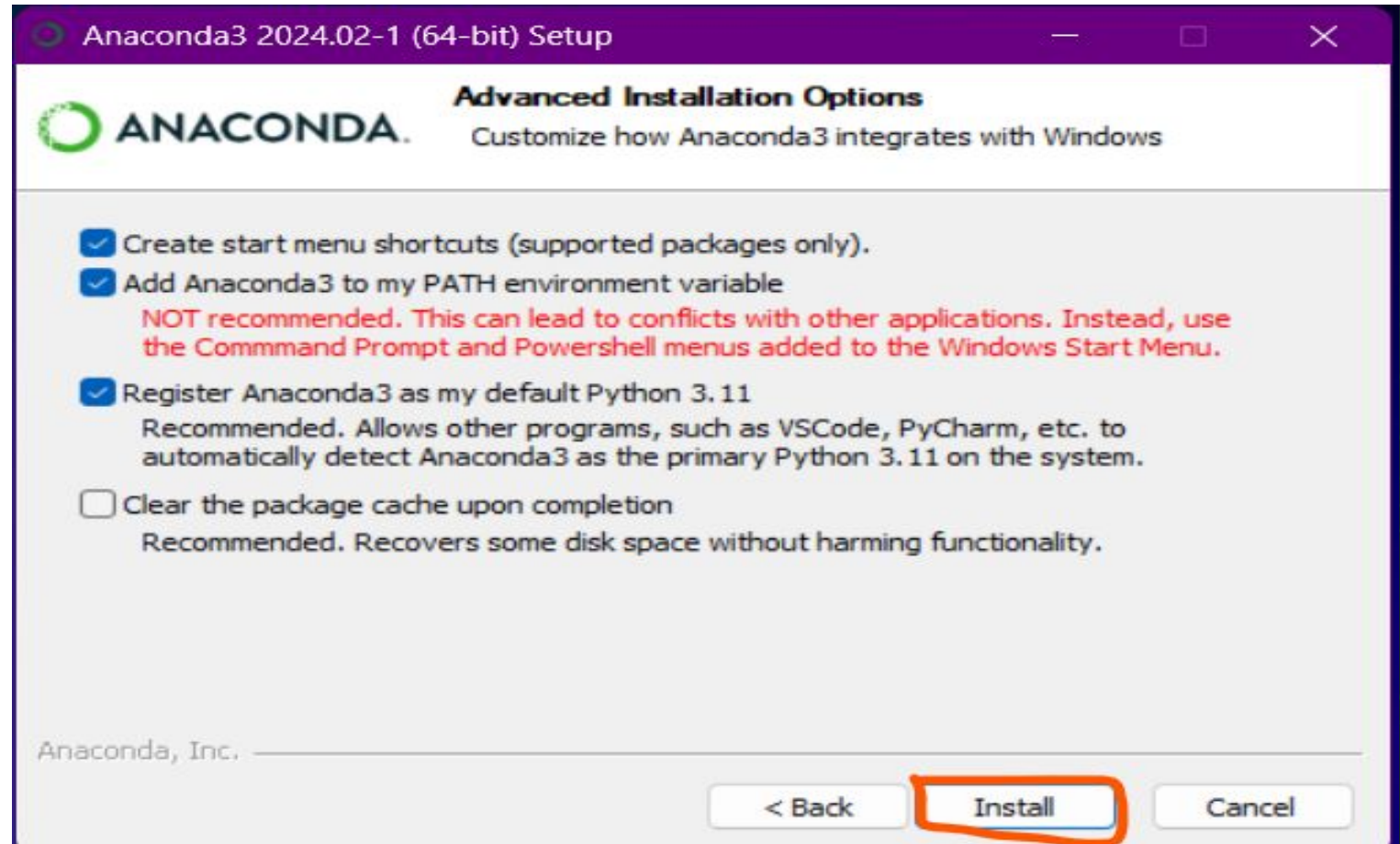
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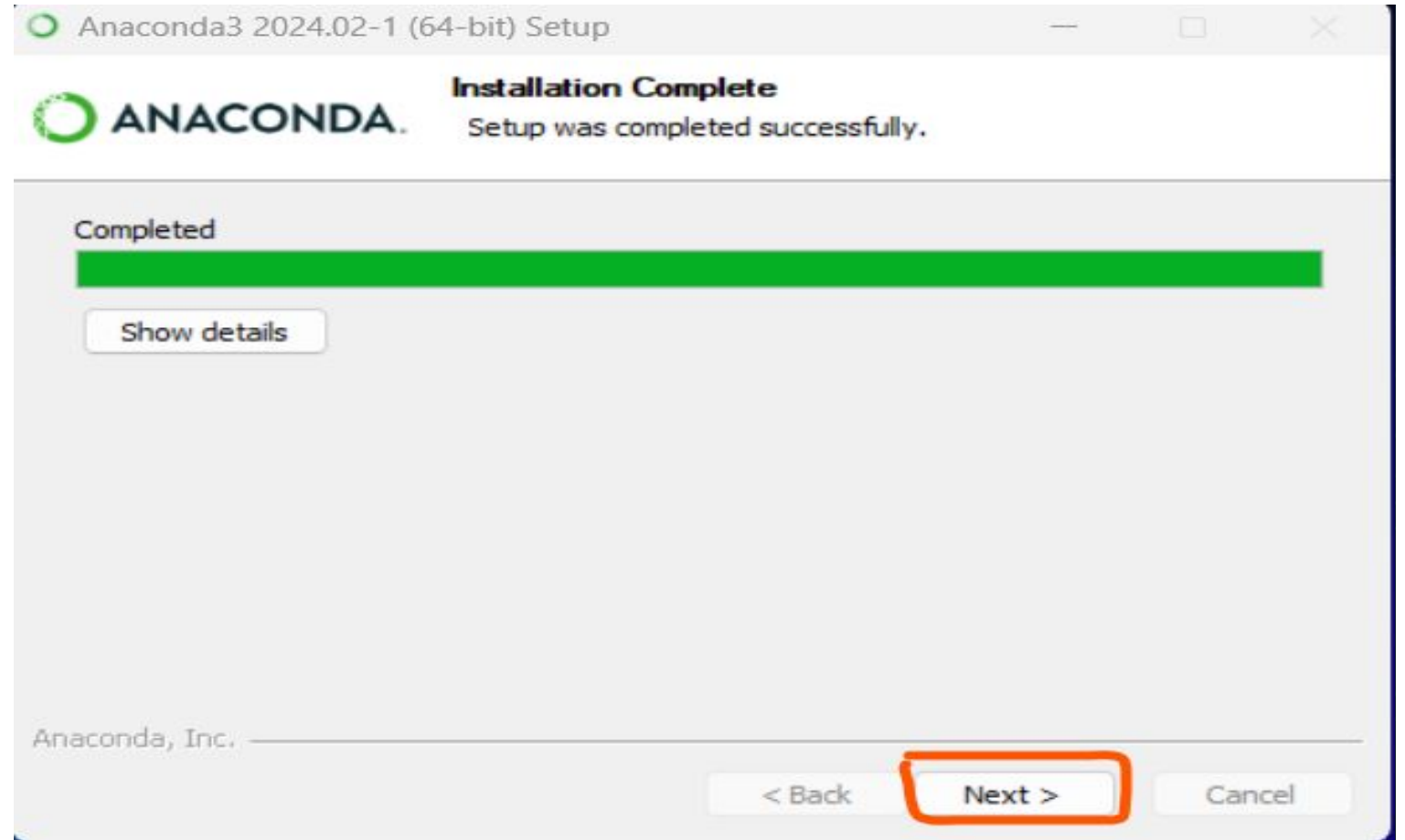
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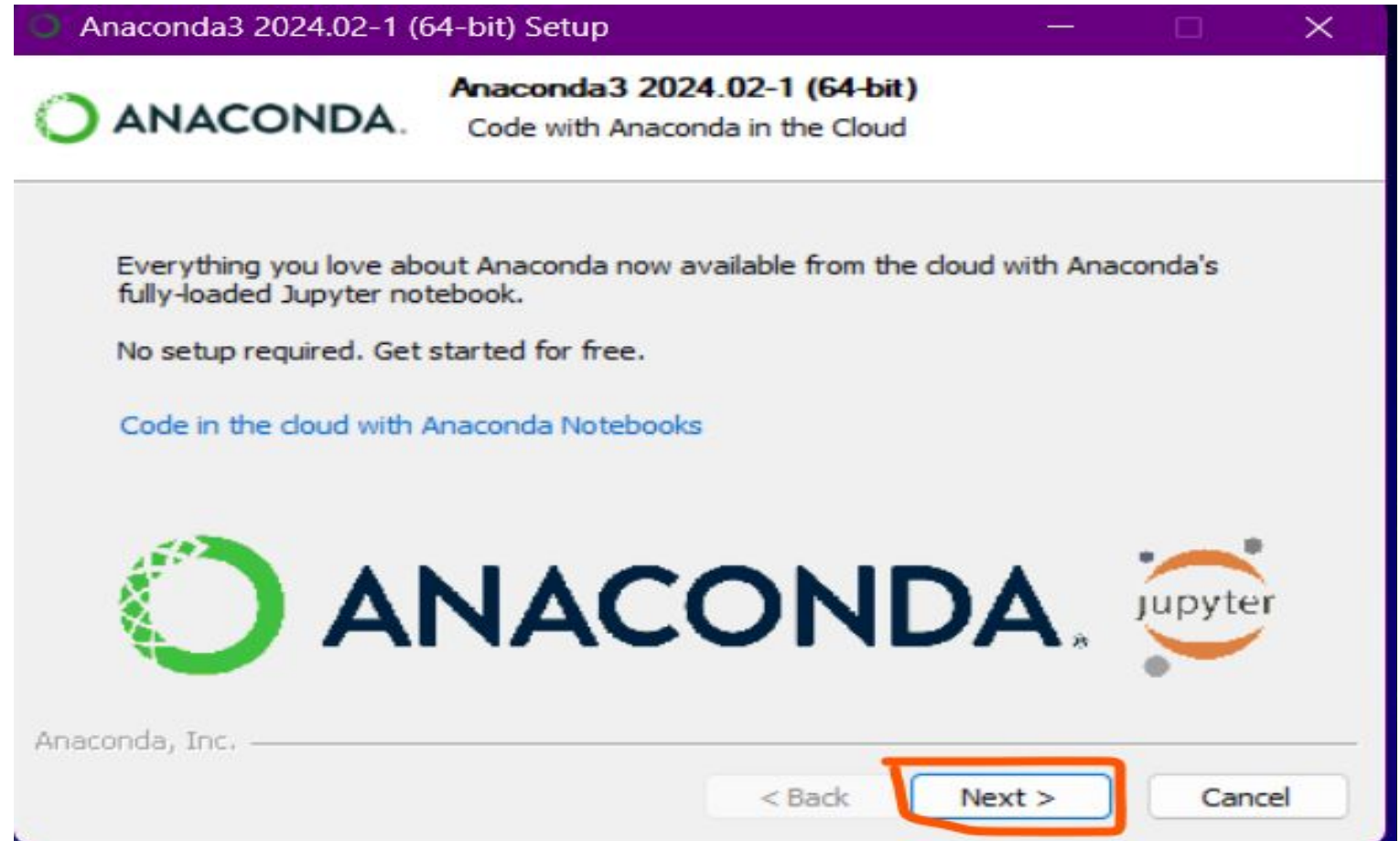
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Step7:

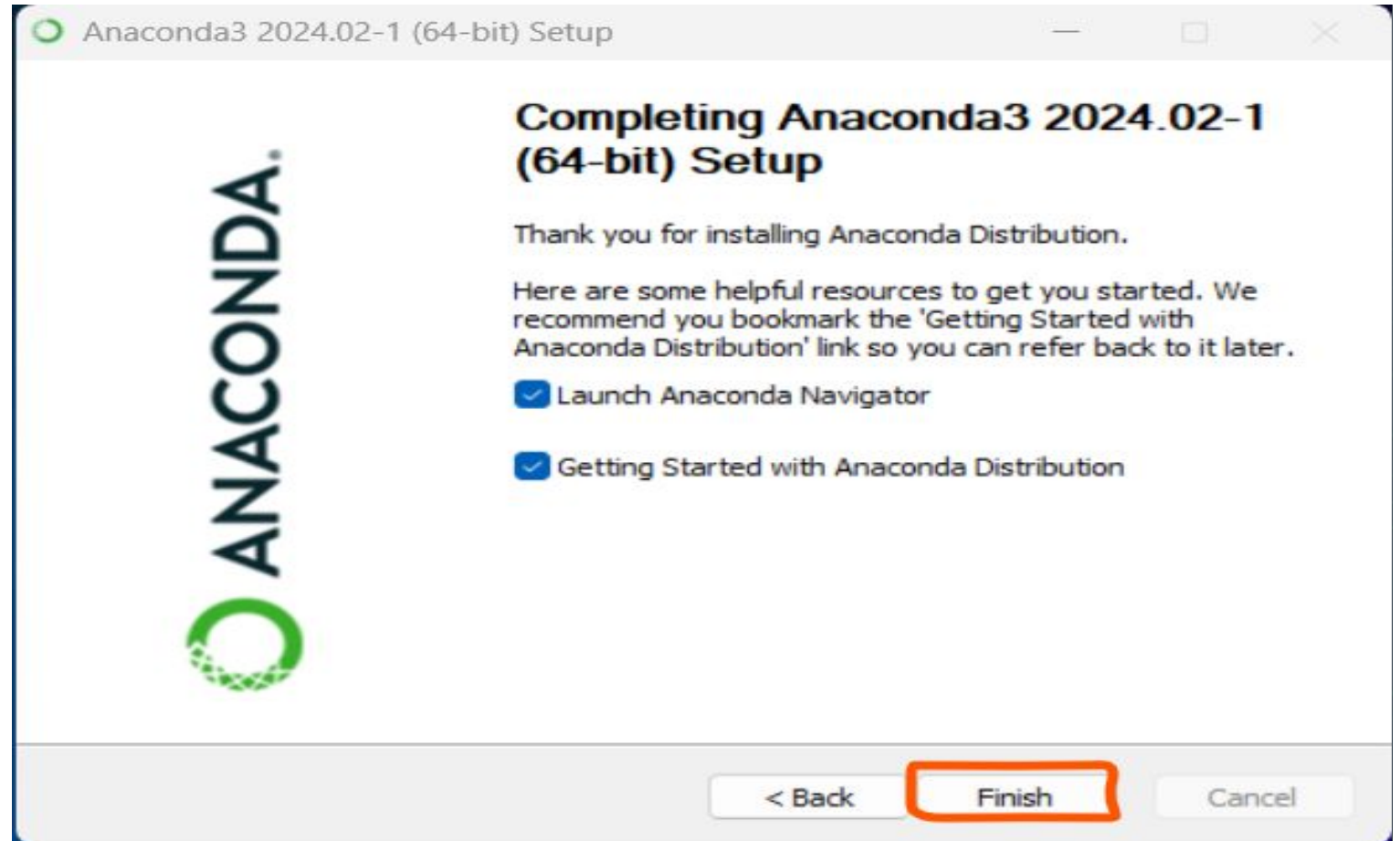


Step8:





Step9:



# Python Programming

Review today's Jupyter notebook working file.