

Daily Entry – Week 1

Date: 10 – 14 June, 2024

Day 1: Basics of Python

- Overview of Python: Syntax, indentation, variables, and data types.
- Working with strings, numbers, and boolean operations.
- Writing simple programs, basic input/output operations.

Day 2: Object-Oriented Programming (OOPs)

- Understanding objects, classes, and methods.
- Concepts like inheritance (reusing code), polymorphism (different forms of functions/methods), and encapsulation (hiding data).
- Real-world examples of OOP and hands-on exercises.

Day 3: Problem-Solving

- Breaking down problems into smaller sub-problems.
- Algorithms and flowcharts for logical thinking.
- Practice solving coding challenges with loops, conditions, and functions.

Day 4: Pandas, Numpy, Scipy

- Pandas: Dataframes, data manipulation, filtering, grouping, and aggregations.
- Numpy: Arrays, matrix operations, and linear algebra.
- Scipy: Advanced mathematical operations like integration, optimization, and signal processing.

Day 5: Exploratory Data Analysis (EDA) & Linux

- EDA: Using Python to load datasets, create visualizations (e.g., histograms, scatter plots), and summarize data.
- Linux: Basic commands for file management, navigating directories, and using the terminal effectively.