AI & DATA SCIENCE USING PYTHON

Introduction to AI ML DS , Gen AI and Agentic AI (DEMO)

- Relationship between AI, ML, DL, NLP, Data Science, Gen AI, Agentic AI

- Applications for data science

- Why Python for Data Science

- AI Tools: Claude/Perplexity/Co Pilot/ChatGPT/Deep Seek

Python Programming

Python Overview

• Installation of Anaconda Python,

- Python Features

• Variables, Operators, Data Types

- Conditions

- Loops

- Functions

- Modules, Packages

• String object, Exercises

- List object, Exercises, Case study

• Tuple object, Exercises

• Dictionary object, Exercises, Case Study

• Set, Frozenset

• Comprehensions

- List comprehension,
- Dictionary comprehension.
- Set Comprehension

• Python File I/O
- Applications using File IO
- Exercises