

NOTE:

By following this document, no external library needs to be installed. Only the python's built-in packages and libraries should be used.

PHASE-1: Starting Point

- **Python installation**
 - Install python
 - Any stable latest version like 3.9 or 3.10
- **Read the docs**
 - Follow documentation from any source but recommended is python official documentation for example here <https://docs.python.org/3/tutorial/index.html>
 - Read the documentation, follow the steps and do the practice for each module

PHASE-2: Most Important Topics

Following topics are the most widely used topics in the upcoming tutorials and development for example in **Scrapy**.

Cover up these topics from any source in depth and with hand on practice.

- **Creating Virtual Env**
 - Creating venv
 - Activating venv
 - Installing libraries in venv
- **IDE Installation**
 - Install an IDE
 - Pycharm Recommend
- **Strings + its methods**
- **Lists + its methods**
- **List comprehension**
- **Dictionaries + its methods**
- **Dict comprehension**
- **Sets + its methods**

- **Tuple + its methods**
- **Loops and Conditional Statements**
 - For loops
 - while loops
 - If else statements
 - Match-case statements
- **Lambda Expressions**
- **Errors and Exception Handling**
- **Generators**
- **Dates and Times**
 - Conversion of dates into multiple formats
 - Adding two dates
 - Subtracting two dates
 - Adding/Subtracting Days from a Date
- **Multi-threading**
- **Range**
- **Enumerate**
- **Zip, zip_longest**
- **Regex. RE module + its methods**
- **Exception Handling**
- **Introduction to Database**
 - Create Schema
 - Create Tables
 - CRUD Operations

PHASE-3: File Handling

- **Read Files**
 - Read data from text files
 - Read data from CSV files
 - Read data from JSON files
- **Write to files**
 - Writing data to text files
 - Writing data to CSV files
 - Writing data to JSON files
- **Append to files**
 - Append data to text file
 - Append data to CSV file
- **Merge files**
 - Merge two files' data into a single file.

PHASE-4: Assignments & Quizzes

- To be discussed and assigned after phase 2 & 3

PHASE-5: Scrapy

- To be discussed