

Python Course Content for 0 to Master For Perfection (Tej bawa)

3 Aspect

- ① Mastering All aspect of python (Theoretically)
- ② Practical handson
- ③ Logic building in python.

Course Content:

Module 1: Basic

- Theoretical {
 - * Python Syntax, variable, data types & operators
 - * Control flow (if, else, elif)
 - * loops { for, while, Nested (Imp.) }
- Logic building {
 - Specific question I will be giving
- Handson (Practical) {
 - * Simple calculator program [using if else, for]
 - * Number guessing game

Module 2:

- * List, Tuples & Sets (Creating, Modifying & Accessing)
- * Dictionaries (Key-value pair, nested dictionaries)
- * Strings In Depth (Slicing, formatting, string operations)

- Logic building Question: Providing Question
- Hands on : {
 - frequency counter of words in text file { for reading here we will use file read, no need of prior know }
 - Building Contact Book using Dictionary.

* Module 3: Function & Modules

* Functions : Arguments, Default Parameters

* Lambda function & Map, Filter, Reduce

* Modules & Packages : Importing & Using custom module & Creating own module.

→ Logic Building Question

→ Hands on: (1) Khud ki maths library with multiple functions



* Module 4: File Handling

* Reading, Writing, Updating & Files
(text file, CSV, JSON)

* Error Handling: Try, Catch, Finally

→ Logic Building:

→ Hands on:

(1) To do like project [Explaining in detail]

(2)

Module 5: OOPs

- * Classes & Object
- * Inheritance & Polymorphism
- * Encapsulation & Abstraction
- * Hands on: ① Library Management
② Simple Game in OOPs.

Module 6: Mastering Python for Data Science.

- * Numpy
- * Pandas
- * Matplotlib & Seaborn

Hands on: ① Data Cleaning & processing on Real Database
② Data Analysis & Visualization dashboards.

Module 7: Working with Databases

* Basic of Database (SQL, CRUD)

* SQLite with Python (Connecting Python Database)

Hands on : (1) Student Record Management
(2) Creating & Updating database of Ecommerce.

* Module 8: web development with Flask
* Flask & basic html/css integration
* Making own API using Flask & REST

Hands On: (1) Using Flask, database making
basic e-comm
(2) Making own API for text
processing.

* Module 9: Automation for own & using API
* Using Python Scripts for file handling
Email automation & data scraping (VIMR)
* Working with API (using Gemini & other API)

Hands ON: ① API for good work &
② web scraping for sashak
project (Automation)

* Module 10 : Placement, Interview points.
View.

* Sorting Techniques : All Sorting

* Searching Algo //

* Stack Queue Implementation