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Advanced Python Syllabus

Core Python

Week--1

Introduction

- **✓** History
- ✓ Features
- ✓ Setting up path
- ✓ Working with Python
- ✓ Basic Syntax
- ✓ Variable and Data Types
- **✓** Operator

Week—2

Conditional Statements

- **√** If
- ✓ If- else
- ✓ Nested if-else

Looping

- **√** For
- **√** While
- ✓ Nested loops

Control Statements

- **✓** Break
- **✓** Continue
- ✓ Pass

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Week-3—

String Manipulation

- Accessing Strings
- **Basic Operations**
- String slice
- Functions and Methods

Lists

- ✓ Introduction
- Accessing list
- Operations
- Working with lists
- Function and Methods

Tuple

- ✓ Introduction
- ✓ Accessing tuples
- ✓ Operations
- **√** Working
- ✓ Functions and Methods

Dictionaries

- ✓ Introduction
- ✓ Accessing values in dictionaries
 ✓ Working with dictionaries
- ✓ Properties
- ✓ Functions

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Week-4---

Functions

- ✓ Defining a function
- ✓ Calling a function
- ✓ Types of functions
- ✓ Function Arguments
- ✓ Anonymous functions
- ✓ Global and local variables

Modules

- ✓ Importing module
- ✓ Math module
- ✓ Random module
- ✓ Packages

Week5--

INPUT_OUTPUT_

- ✓ Printing on screen
- ✓ Reading data from keyboard
- ✓ Opening and closing file
- ✓ Reading and writing files

Exception Handling

- ✓ Classes & Objects
- ✓ Inheritance
- ✓ Overriding v/s Overloading
- ✓ Overloading Operators
- ✓ Data Encapsulation

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Advance Python

Regular expressions

- ✓ Match function
- ✓ Search function
- ✓ Matching VS Searching
- **✓** Modifiers
- **✓** Patterns

CGI

- **✓** Architecture
- ✓ CGI environment variable
- ✓ GET and POST methods
- **✓** Cookies
- ✓ File upload

Database

- **✓** Introduction
- ✓ Connections
- ✓ Executing queries
- ✓ Transactions
- ✓ Handling error

Networking

- ✓ Socket
- ✓ Socket Module
- ✓ Methods
- ✓ Client and server
- ✓ Internet modules

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Multithreading

- **✓** Thread
- ✓ Starting a thread
- ✓ Threading module
- ✓ Synchronizing threads
- ✓ Multithreaded Priority Queue

GUI Programming

- ✓ Introduction
- ✓ Tkinter programming
- ✓ Tkinter widgets

Sending email