



python

Core & Advance Python Syllabus

Core Python

Introduction

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



Conditional Statements

- If
- If- else
- Nested if-else

Looping

- ✓ For
- ✓ While
- Nested loops

Control Statements

- ✓ Break
- ✓ Continue
- ✓ Pass



String Manipulation

Accessing	✓	Strings
Basic	✓	Operations
String slices	✓	
Function 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	✓	

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	✓	
Composition	✓	

Input-Output

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

Exception Handling

Exception	✓	
	✓	Exception Handling
Except	✓	clause
Try ? finally	✓	clause
	✓	User Defined Exceptions

Advance Python

OOPs concept



Class and	✓	object
Attributes	✓	
Inheritance	✓	
	✓	Overloading
	✓	Overriding
	✓	Data hiding

Regular expressions

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

CGI

	✓	Introduction
	✓	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

Multithreading

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

GUI Programming

Introduction	✓	
	✓	Tkinter programming
Tkinter	✓	widgets

Integrated with Django Web Framework

MODULE 1.

- Setup
- Intro to Python Programming
- Comments And Pound Characters, Numbers And Math, Variables
- Names More Variables And Printing Strings And Text
- More Printing Examples, Asking Questions, Prompting People



- Parameters, Unpacking
- File Handling & Functions

MODULE 2.

- Reading some code
- Boolean Practice
- What If, Else and If, Making Decisions
- Loops and Lists
- Branches and Functions
- Designing and Debugging
- Dictionaries
- Modules, Classes and Objects (OOP)
- Inheritance and Composition

MODULE 3.

- Intro to Game Development using Python
- Creating Automated Tests
- Advanced user inputs
- Making sentences
- Creating your first website
- Getting input from a browser
- Starting your first Web Game
- Intro to Django Web Framework

