**Python syllabus**

all the latest topics from basics to advanced level like Python for Machine Learning, Al, Web development and Data Science.

**Module 1: An Introduction to Python**

* What can Python do?
* Why Python?
* Good to know
* . Python Syntax compared to other programming languages
* Python Install

**Module 2: Beginning Python Basics**

* The print statement
* Comments
* Python Data Structures & Data Types
* .String Operations in Python
* . Simple Input & Output
* Simple Output Formatting
* Operators in python

**Module 3: Python Program Flow**

* Indentation
* The If statement and its' related statement
* . An example with if and it's related statement
* .The while loop
* .The for loop
* The range statement
* Break &Continue
* .Assert
* Examples for looping

**Module 4: Functions& Modules**

* Create your own functions
* Functions Parameters
* Variable Arguments
* Scope of a Function
* Function Documentations
* Lambda Functions& map
* n Exercise with functions
* Create a Module
* Standard Modules

**Module 5: Exceptions Handling**

* Errors
* Exception handling with try
* handling Multiple Exceptions
* Writing your own Exception

**Module 6: File Handling**

* File handling Modes
* Reading Files
* Writing& Appending to Files
* Handling File Exceptions
* The with statement

**Module 7: Classes In Python**

* New Style Classes
* Creating Classes
* Instance Methods
* Inheritance
* Polymorphism
* Exception Classes & Custom Exceptions

**Module 8: Generators and iterators**

* Iterators
* Generators
* The Functions any and all
* With Statement
* Data Compression

**Module 9: Data Structures**

* List Comprehensions
* Nested List Comprehensions
* Dictionary Comprehensions
* Functions
* Default Parameters
* Variable Arguments
* Specialized Sorts

**Module 10: Collections**

* namedtuple()
* deque
* ChainMap
* Counter
* Ordered Dict
* defaultdict
* UserDict
* UserList
* UserString

**Module 11: Writing GUIs in Python (Tkinter)**

* Introduction
* Components and Events
* An Example GUI
* The root Component Adding a Button
* Entry Widgets
* Text Widgets
* Check buttons

**Module 12: Python SQL Database Access**

* Introduction
* Installation
* DB Connection
* Creating DB Table
* INSERT, READ, UPDATE, DELETE operations
* Commit & ROLLBACK operation
* handling Errors

**Module 13: Network Programming**

* Introduction
* A Daytime Server
* Clients and Servers
* The Client Program
* The Server Program

**Module 14: Date and Time**

* sleep
* Program execution time
* more methods on date/time

**Module 15: Few more topics in-detailed**

* Filter
* Мар
* Reduce
* Decorators
* Frozen set
* Collections

**Module 16: Regular Expression**

* Split
* Working with special characters,
* Quantifiers
* Match and find all
* character sequence and substitute Bat Tech
* Search method

**Module 17: Threads ESSENTIAL**

* Class and threads
* Multi-threading
* Synchronization
* Treads Life cycle
* use cases

**Module 18: Accessing API ESSENTIAL**

* Introduction
* Facebook Messenger
* Openweather

**Module 19: DJANGO**

* Django Overview
* Django Installation
* Creating a Project
* Usage of Project in depth Discussion
* Creating an Application
* Understanding Folder Structure
* Creating a Hello World Page
* Database and Views
* Static Files and Forms
* API and Security