

PYTHON-DJANGO SYLLABUS

Chapter 1: Introduction to Python

- Install Python and Environment Setup
- First Python Program
- Python Identifiers, Keywords and Indentation
- Comments and document interlude in Python
- Getting User Input
- Python Data Types
- What are variables?
- Python Core objects and Functions

Chapter 2: Control Statements

- if-else
- if-elif-else
- while loop
- for loop
- break
- continue
- return



Chapter 3: Arrays In Python

- a. • Introduction
- b. • Lists in Python
- c. • More about Lists
- d. • Understanding Iterators

Chapter 4: Python Dictionaries and Sets

- Python Dictionaries
- More on Dictionaries
- Sets
- Python Sets Examples

Chapter 5: Python Files

- Reading and writing text files
- writing Text Files
- Appending to Files and Challenge

Chapter 6: Python Functions

- Python user defined functions
- Python packages functions



- Defining and calling Function
- The anonymous Functions
- Loops and statement in Python
- Python Modules & Packages

Chapter 7: Python Object Oriented

- Overview of OOP
- The self variable
- Constructor
- Creating Classes and Objects
- Inheritance

Chapter 8: Using Databases in Python

- MySQL
 - Python MySQL Database Access
 - Install the MySQLdb and other Packages
 - Create Database Connection
 - Working with MySql queries using python
- MongoDB



- Python MongoDB Access
- Install MongoDB
- Create Database Connection
- Working with Mongo queries using python

Chapter 9: Data Analysis Using Python

- Numpy:
 - Introduction to numpy
 - Creating arrays
- Pandas:
 - What are pandas?
 - Series in pandas
 - What are DataFrames
 - Series in pandas
- Matplotlib:
 - Python for Data Visualization
 - Welcome to the Data Visualization Section
 - Introduction to Matplotlib



Chapter 10: Django Web Framework in Python

- Introduction to MVC and MVT architecture in Web development
- Django folder structure and flow of control
- Basic HTML,CSS,JS
- Template Rendering.
- CRUD Operations using Django.
- Cookies and Session in Python
- ORM in Python
- Table Relations in django
- Django REST Framework.
- Writing Serializers and REST API Methods.
- Decorators
- Token generation.
- Routing API's
- Version Control-Git (Bitbucket)
- Testing Tool- Postman
- Sample Projects
- Live Project.

