

# **BASIC PYTHON**

## **1. Python introduction --**

- Getting started
- Keywords and identifiers
- Statements and comments
- Python variables
- Python data types
- Python type conversion
- Python i/o and import
- Python operators
- Python namespace

## **2. Python flow control--**

- Python if...else
- Python for loop
- Python while loop
- Python break and continue
- Python pass

## **3. Python datatypes--**

- Python numbers
- Python list
- Python tuple
- Python string
- Python set
- Python dictionary
- Python nested dictionary
- Python arrays
- Python matrix
- Python comprehension

## **4. Python functions--**

- Python functions
- Function argument
- Python recursion
- Anonymous function
- Global, local and nonlocal
- Python global keywords
- Python modules / namespace
- Python package

## **5. Python files--**

- Python file operations
- Python directory
- Python exception
- Exception handling
- User defined exception

## **6. Python object and class--**

- Python oop
- Python class
- Python inheritance
- Operator overloading

## **7. Python date and time--**

- Tick
- Timetuple
- Getting current time
- Getting formatted time
- Getting calendar for a month
- Time module
- Calendar module

## **8. Python mathematical functions--**

- Inbuilt functions
- Python generating random numbers
- Python lam
- bda functions
- Map, filter, reduce

# **ADVANCED PYTHON**

- 1. Python iterator**
- 2. Python generator**
- 3. Python closure**
- 4. Python decorators**
- 5. Python property**
- 6. Python shallow and deep copy**
- 7. Python assert**
- 8. Python regular expressions**
- 9. Python multithreading**
- 10. Python \* args and \*\*kwargs**

- 11. Python virtualenv guide
- 12. Python string formatting
- 13. Installing packages using PIP

## **Data Science**

- 1. Introduction to Data Sciences
- 2. Python Packages
- 3. Numpy
- 4. Pandas
- 5. Matplotlib
- 6. Building Inference
- 7. Final Project

- 18. Flask extensions**
- 19. Flask mail**
- 20. Flask sqlite**
- 21. Flask sqlalchemy**
- 22. Flask sjax**
- 23. Flask deployment**