



**FULL STACK  
PYTHON**

# PYTHON FOR ALL

[WWW.SRINISOFTWARETRAINING.COM](http://WWW.SRINISOFTWARETRAINING.COM)



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# COURSE CONTENT

## LEARNING PLAN

SI.NO	TOPIC	LEARNING TIME	NO.OF QUIZES	NO.OF ASSIGNMENTS	TOTAL TIME
1	Significance of Python	01:00	Na	Na	01:00
2	Python Programming	08:00	300	100	08:00
3	Data Base Programming SQL	04:00	20	20	04:00
4	No-SQL MongoDB	02:00	10	10	02:00
5	Front End Technology	02:00	20	20	02:00
6	Fire Base Cloud	01:00	10	10	01:00
7	Selenium Intro	02:00	10	10	02:00
8	Web Elements Locators	08:00	00	00	08:00
9	Pytest Framework	04:00	30	00	04:00
10	Parametrize Testing	02:00	20	20	02:00
11	Decorators	02:00	20	20	02:00
12	Data Driven Testing	04:00	20	20	04:00
13	API Testing	04:00	20	20	04:00
14	Projects	08:00	NA	NA	08:00
15	Data Science	10:00	100	100	10:00
15	Machine Learning	10:00	100	100	10:00
				TOTAL	70:00

## COURSE OUTCOME

- To learn core & advance python programming
- To learn python for front end design
- To learn python for backend design
- To learn python for cloud design
- To learn python for automation testing with selenium tool
- To learn python for API Testing
- To learn python for data science for data science
- To learn python for machine learning

# **TABLE OF CONTENT**

## **1. SIGNIFICANCE OF PYTHON**

- Introduction to Python
- Features of python
- Applications of python
- Skills for real time IT industry

## **2. PYTHON PROGRAMMING**

- Python Editors/Tools
- IDLE
- COLAB/JUPYTER Tool
- Pycharm Tool
- Tokens of Python
- Control Structures
- Tkinter Module
- Functions
- Data Structures
- Files Concept
- Regular Expressions
- Object Oriented Programming
- Advanced Data Structures in Python

## **3. DATA BASE PROGRAMMING**

- Mysql Back End
- Installation of Mysql
- DDL operations
- DML operations
- Front End as TKinter & Mysql as backend
- MongoDB Back End
- Installation of MongoDB
- CRUD Operations on MongoDB
- JSON Data Representation
- Front End as Tkinter and Back end as MongoDB

## **4. FRONT END TECHNOLOGY**

- HTML
- HTML Tags
- HTML Tags Attributes
- HTML as Front End & Mysql as Back End project
- HTML as Front End & MongoDB as Back End project

- HTML as Front End & Fire Base Cloud as Back-End project

## 5. FIRE-BASE GOOGLE CLOUD

- Creation of console account in Fire Base cloud
- Establish connection between front end HTML & Firebase
- GUI data supplement from front end to store data in firebase
- Firebase data cloud in the form of JSON Format

## 6. DJANGO FRAMEWORK

- Introduction about Django framework
- Django Installation over python platform
- Django as web deployment framework
- Configuration Settings
- MVT Model as Architecture

## 7. 3-TIER ARCHITECTURE PROJECTS

- Project with Mysql as Backend on Django Framework
- Project with MongoDB as Backend on Django Framework

## 8. DATA SCIENCE FUNDAMENTALS

- AI vs DS vs DW vs DM vs ML
- Classification of data for data analytics
- Data vs Information vs Knowledge vs Wisdom
- Characteristics of data volume, velocity, variety
- OLAP Vs OLTP
- Demonstration about N-Dimensional data representation
- Types of Analysis in Data Science domain

## 9. NUMPY MODULE

- Importing and operations of numpy
- Index, slice, reshape numpy arrays
- Numpy array broadcasting
- Vector Arithmetic Operations
- Matrix Arithmetic Operations
- Types of Matrices
- Matrix Operations
- Tensor Arithmetic operations

## 10.PANDAS MODULE

- Importing pandas module
- Pandas Series structure
- Pandas Dataframe structure
- Possible operations on Dataframe
- Aggregating Data

## 11. STATISTICS FOR DATA SCIENCE

- **Introduction to Statistics**
- **Types of data**
- **Terminologies of statistics**
- **Descriptive Statistics**
- **Inferential Statistics**
- **Application of Statistics in Machine Learning**

## **12.MATPLOTLIB MODULE/Power BI**

- **Importing matplotlib**
- **Types of plots**
- **Line Plot**
- **Scatter Plot**
- **Bar Plot**
- **Histogram**
- **Pie Chart**

## **13. MACHINE LEARNING ALGORITHMS**

- **Fundamentals of ML Techniques**
- **Classification of ML Techniques**
- **Supervised Learning Algorithms**
  - **Linear Regression Algorithm**
  - **Multilinear Regression Algorithm**
  - **Logistic Regression Algorithm**
  - **Decision Tree Algorithm**
  - **Naïve Bayes Algorithm**

### **U GET FROM THE COURSE:**

- **International Certificate as Internship from ROTOMAKER MNC Company**
- **Course Completion**
- **Placement Assistance and Assurance**