



SKS  
HIRING  
CUBE

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# Python Full Stack – Flask, Selenium, Pandas

## About this course

`It is the **easiest** programming language that you can learn`. Python is now the de-facto programming language for **data science**. So, learning python is kind of a **rewarding** career. Initially, while learning basics might be boring...but as you progress you can practice **exciting** and **real world** examples. This course not only focuses on syntactic sugars of Python, but also helps you **improve** your **coding skills** and focuses on improving **patterns** in **solving problems**. This course not only focuses on Python but also provides you a way to get into **test automation** and **data science**. So if you're looking to upgrade yourself as a **python developer** or **backend developer** or **data scientist** or **test automation engineer** then this course will help you to get started quickly. (don't expect to be a master in these :)).

## What can you get out of this course?

- Recognize terminology and **Python fundamentals**
- **Real time** problems and applying solutions with python
- Practical way to **apply OOPs concepts**
- Working with **3rd party packages**
- Packaging and **publishing your own code** to open source
- **API development** using Flask
- **Containerizing** your python app using **docker**
- Simple test automation using **Python selenium**
- **Data Science** - Working with data using **Pandas**

## This course is for?

- Absolute beginners
- Wish to get into backend development using python
- Wish to understand python to get into data science
- Wish to understand python to get into test automation

## Delivery Method

This course will be delivered through a mix of:

- Online instructor-Led Training
- Hands-on Labs
- Knowledge Checks

## Hands-On Activity

This course includes activities that will allow you to test new skills and apply knowledge through **hands-on lab** activities.

## Duration

6 classes, each class around 2 to 2.5 hrs on Saturday, Sunday – Total 5-6 weekends

Timezone: **US East: 9AM-11:30AM** , **US Central: 8:00AM-10:30AM**, **India: 06:30PM-9:00PM**,  
**UK: 2:00PM-4:30PM**

## Pre-Requisites (Installation instructions will be sent ahead of class)

- A desktop (PC/MAC) with at least 2 gig memory and 10GB free space with at least 1.5GHz processor
- Any code editor or IDE. You can use VS Code, PyCharm, Notepad++.
- Registration done through [LMS](#)

## Course Outline

**Note:** course outline may vary slightly based on the regional location and/or language in which the class is delivered. Every class has a real time use case , presentation material, video recorded, and homework exercises to hone your skills

### Class 1: Combination Finder

- Quick history of Python
- Zen of Python
- Python Versions
- Virtualenv
- Skeleton
- Variables & basic data types
- If condition
- For loop

### Class 2: Corona Analysis (1.0)

- Code review
- PEP8
- Lists
- Tuples
- Dictionaries
- Methods
- Modules
- Packages
- Operators

### Class 3: CSV to JSON converter (1.0)

- Files manipulation
- Exception handling
- Args & kwargs
- String manipulation

### Class 4: CSV to JSON converter (2.0)

- Decorators
- Usage of Generators
- Code optimization with list comprehensions
- Filter, map and reduce

### **Class 5: Social DP generator**

- Pypi
- Working with third party packages
- Image processing using PIL
- Publishing your own package

### **Class 6: Flipkart scrapper**

- OOP's way of seeing things
  - Class
  - Object
  - Properties
  - Methods
  - Encapsulation
  - Self
  - super
- Requests module
- Scrapping

### **Class 7: IMDB movie search API**

- Understanding Web
- Understanding API
- ContentTypes
- Rest Vs Soap
- Python Flask

### **Class 8: Daily expenses tracking REST API**

- Working with databases
- SQL fundamentals
- REST Crud operations
- Securing API with JWT

### **Class 9: Test your code**

- UnitTesting in Python
- API Testing

### **Class 10: Integration testing using selenium**

- Understanding Selenium
- Automating routine

### **Class 11: Corona analysis (2.0)**

- Pandas Basics
- Data Shaping
- Data manipulation
- Filtering
- Stats

### **Class 12: Advanced topics, tips and tricks**

- Python3 Typings
- Asyncio
- Linting
- Containerizing your apps using Docker

## **About the Coach**

Partha is a polyglot engineer and mentor with over 7 years of experience in building exciting products for startups and MNC's. His experience in working with different technologies brought him good coding skills and problem solving skills. He also does good open source contributions towards cutting edge technologies.

Partha currently resides in India, and spends most of his weekends helping engineers reach their next level of career.

[Github](#) | [LinkedIn](#) |