

Inventateq

# ADVANCED PYTHON COURSE CURRICULUM

## YOUR JOB HUNTING ENDS HERE

Start your career with Python course that gets  
Your Dream Job!

# Become A Python Certified Professional

It is only skills and not degree that can help you grow. But if you are one of those individuals who believe in getting certified along with skills then we have got you covered. After completion of the training not only will you become an expert in Python but you will also be a Python certified professional.

## One Training Program 2 Certifications

### Inventateq



PCAP CERTIFICATION



Industry Recognized INVENTATEQ Certificate

# GET TRAINING AND GET EMPLOYED



CLASS ROOM TRAINING



ONLINE TRAINING



CORPORATE TRAINING

12,409+  
Trainees

500+  
Batches

4.9/5  
Ratings

# 12,409+ Success Stories

Here is what they say about INVENTATEQ.



It's a very good platform for learning python language. Instructor having a very good experience in teaching the course of python and if we practice parallelly we can gain the knowledge in depth about the language. Trainer teaching is entirely a different process and we will be having daily assignments also. I suggest the people who like to learn python its better to join in Inventateq.

**ARUNA CHAVULI**



Good place to learn python with Django. Trainer is very good at programming and gave me a strong basic to python programming. Inventateq is one of the best python coaching centers around Bangalore.

**VENKATESWARULU**



I got the basic idea on Python with Django after attending course for 45 days. If we practice parallelly after completion of every class we can learn more in depth. And also, it will be more beneficial if slow down the process of explanation to the people who don't have programming background.

**HARSHA VARDAN**



I joined python with Django course in Inventateq. I am very comfortable in writing programs on my own after completing the course here. The trainer makes us to write programs in the class. Which is the unique methodology here.

**SADHIKA PARVEEN**



# 12,409+ Success Stories

## Here is what they say about INVENTATEQ.



I attended the Python training in Inventateq. Previously I had no knowledge of Python. The institute gives us a fair idea on practically working on python programs with a variety of scenarios. It has highly increased my logical thinking and made me quite thorough with the Python syntax. concepts strong.

**SURENDRA KUMAR**



I took python classes from Inventateq. This man got the stuff and he know how to teach programming language in a practical way. writing more programs are really matters than just sitting at looking at white board. here u write programs throughout the class, end of the day makes u feel like more confident in programming.

**TEJASWINI REDDY**



I would suggest Inventateq to anyone who wants to learn Python with Django. The teaching method will be to teach concept first and write a program on it in the class. Trainer explains one program and the students has to write the next programs with some extension of requirement.

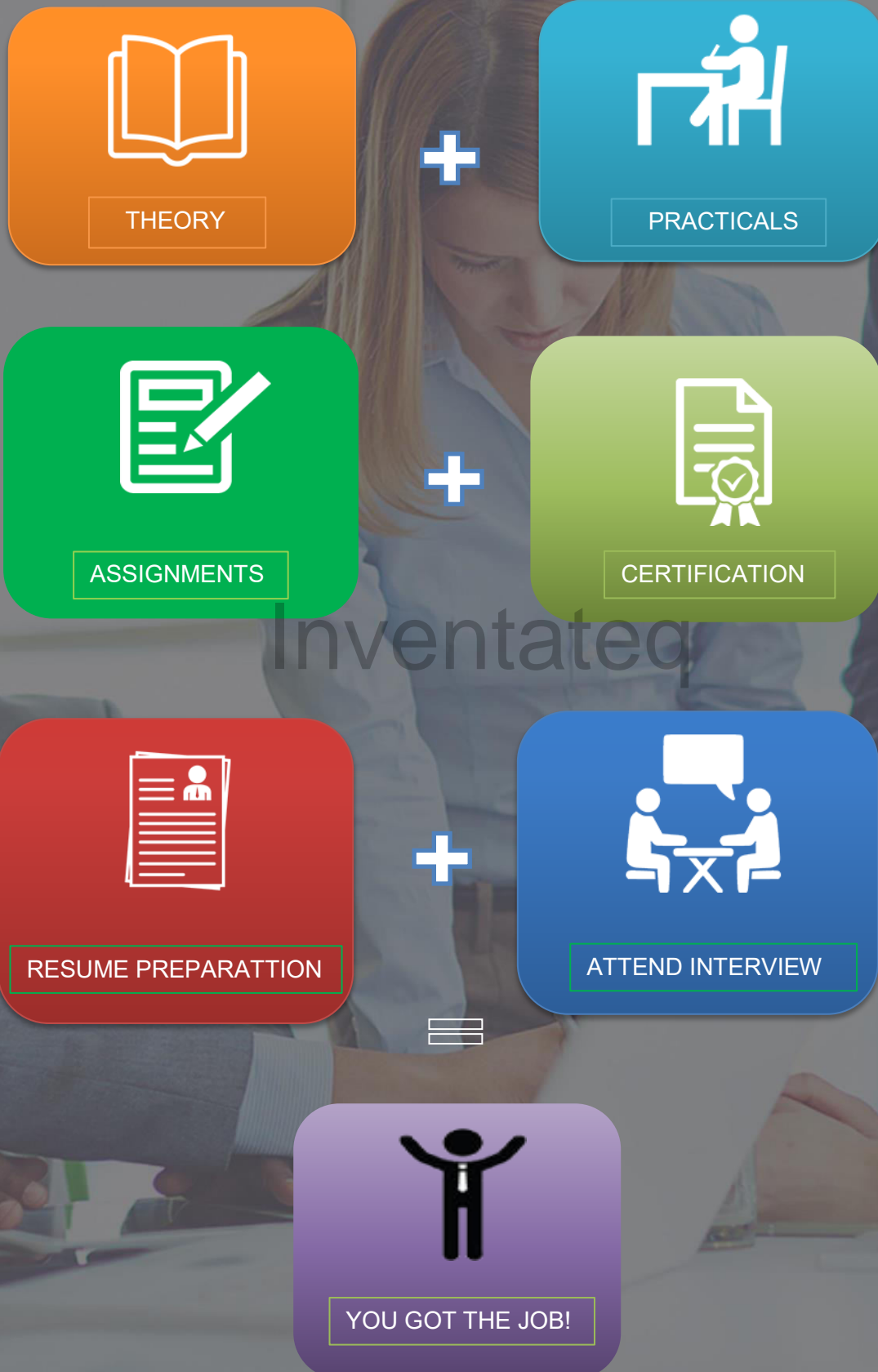
**RAHUL**



Inventateq is a really good place to start your python training, where they emphasize on programming than on theory. You will surely leave this place with a confidence that you can write a program.

**SRIHARI BODA**

# Training Process



# Detailed Course Syllabus



## TABLE OF CONTENT

1	Core Python
2	Advanced Python
3	Django with Python
4	Data science with Python

Inventateq

# Part I. Getting Started

## 01.A Python Q&A Session

1. Why Do People Use Python?
2. Software Quality
3. Developer Productivity
4. Is Python a “Scripting Language”?
5. OK, but What’s the Downside?
6. Who Uses Python Today?
7. What Can I Do with Python?
8. Systems Programming
9. GUIs
10. Internet Scripting
11. Component Integration
12. Database Programming
13. Rapid Prototyping
14. Numeric and Scientific Programming
15. And More: Gaming, Images, Data Mining, Robots, Excel...
16. How Is Python Developed and Supported?
17. Open Source Tradeoffs
18. What Are Python’s Technical Strengths?
19. It’s Object-Oriented and Functional
20. It’s Free
21. It’s Portable
22. It’s Powerful
23. It’s Mixable
24. It’s Relatively Easy to Use
25. It’s Relatively Easy to Learn
26. It’s Named After Monty Python
27. How Does Python Stack Up to Language X?



## 02. How Python Runs Programs

1. Introducing the Python Interpreter
2. Program Execution
3. The Programmer's View
4. Python's View
5. Execution Model Variations
6. Python Implementation Alternatives
7. Execution Optimization Tools
8. Frozen Binaries
9. Future Possibilities?

## 03. How You Run Programs

1. The Interactive Prompt
2. Starting an Interactive Session
3. The System Path
4. New Windows Options in .: PATH, Launcher
5. Where to Run: Code Directories
6. What Not to Type: Prompts and Comments
7. Running Code Interactively
8. Why the Interactive Prompt?
9. Usage Notes: The Interactive Prompt
10. System Command Lines and Files
11. A First Script
12. Running Files with Command Lines
13. Command-Line Usage Variations

# 01. CORE PYTHON

## Course Objective:

- Master in Python programming language
- Understand Python Scripts on UNIX/Windows, Python Editors and IDEs
- Master the Concepts of Sequences and File operations
- Learn how to use and create functions, sorting different elements, Lambda function, error handling techniques and Regular expressions and using modules in Python
- How to use python in realtime project and sample projects

## Course Syllabus

### Introduction

- History
- Features
- Setting up path
- Working with Python
- Basic Syntax
- Variable and Data Types
- Operator

## Conditional Statements

- If
- If- else
- Nested if-else
- Examples

## Looping

- For
- While
- Nested loops
- Examples

## Control Statements

- Break
- Continue
- Pass
- Examples

## String Manipulation

- Accessing Strings
- Basic Operations
- String slices
- Function and Methods
- Examples

## Lists

- Introduction
- Accessing list
- Operations
- Working with lists
- Function and Methods

Inventateq

## Tuple

- Introduction
- Accessing tuples
- Operations
- Working
- Functions and Methods
- Examples

## Dictionaries

- Introduction
- Accessing values in dictionaries
- Working with dictionaries
- Properties
- Functions
- Examples

## Functions

- Defining a function
- Calling a function
- Types of functions
- Function Arguments
- Anonymous functions
- Global and local variables
- Examples

Inventateq

## Lambda Operator, Filter, Reduce and Map

- Lambda function
- Filter function
- Reduce function
- Map function

## List Comprehension:

- Introduction
- Generator Comprehension
- Set Comprehension

## Modules

- Importing module
- Math module
- Random module
- Packages
- Composition
- Examples

## Input-Output

- Printing on screen
- Reading data from keyboard
- Opening and closing file
- Reading and writing files
- Functions
- Examples



## Exception Handling

- Exception
- Exception Handling
- Except clause
- Try ??? finally clause
- User Defined Exceptions
- Examples

## Regular expressions

- Match function
- Search function
- Matching VS Searching
- Modifiers
- Patterns
- Examples

## Packages:

- Predefined Packages
- User Defined packages

## File Handling

- Text Files
- Binary Files
- Zip and Unzip Files
- Pickling
- Unpickling
- Reading Program from another Program In Command Prompt

# 02. ADVANCED PYTHON

## OOPS

- Class and object
- Attributes
- Methods
- Overloading
- Overriding
- Data hiding

## Inheritance

- Single Inheritance
- Multilevel Inheritance
- Multiple Inheritance
- Hybrid Inheritance
- Hierarchal Inheritance
- IS-A Relationship and HAS-A Relationship

## Polymorphism

- Duck Type Philosophy
- Method Overloading
- Operator Overloading
- Constructor Overloading
- Method Overriding
- Constructor Overriding

## Database

- Introduction
- Connections
- Executing queries
- Transactions
- Handling error

## Networking

- Socket
- Socket Module
- Methods
- Client and server
- Internet modules
- 

## Multithreading:

- Introduction Multitasking
- isAlive
- Enumerate
- Thread Class
- Demonstrate
- Running Parallel Program
- Operating Based Multithreading

## GUI Programming

- Introduction
- Tkinter Programming
- Tkinter Programming

## Data Science With Python

- Introduction
- Setting up with environment
- Basic data types
- Numpy arrays
- Exploring Pandas
- Pandas Series and Data Frames
- Statistics with Pandas  
DataFrames

## Projects:-

- 1) Real Time Projects
- 2) Resume Preparation

# 03. DJANGO WITH PYTHON

## Home

- Audience
- Prerequisites

## Basics

- History of Django
- Design Philosophies
- Advantages of Django

## Overview

- MVC Pattern
- DJANGO MVC - MVT Pattern

## Environment

- Installing Python
- Installing Django
- Database Setup
- Web Server

## Creating a Project

- Create a Project
- The Project Structure
- Setting Up Your Project

## **Sending E-mails**

- Sending a Simple E-mail
- Sending Multiple Mails with send\_mass\_mail
- Sending Multiple Mails with send\_mass\_mail
- Sending E-mail with Attachment

## **Generic Views**

- Static Pages
- List and Display Data from DB

## **Form Processing**

- Using Form in a View
- Using Our Own Form Validation

## **File Uploading**

- Uploading an Image

## **Apps Life Cycle**

- Create an Application
- Get the Project to Know About Your Application

## **Admin Interface**

- Starting the Admin Interface

## **Creating Views**

- Simple View

## **Template System**

- The Render Function
- Django Template Language (DTL)
- Filters
- Tags



## Tags

- Creating a Model
- Manipulating Data (CRUD)
- Linking Models

## Comments

- Dreamreal Model
- hello view
- hello.html template

## Real Time Projects

### 1) E-Commerce domain applications

- Front-End
- Back-End
- HTML
- CSS
- BOOTSTRAP
- DJANGO
- SQLite

Inventateq

## STUDENT BENEFITS

- PROJECT TO PRACTICE
- PRACTICAL CLASSES
- RESUME PREPARATION SUPPORT
- INTERVIEW QUESTION & ANSWERS

## OUR HIRING PARTNERED COMPANIES LIST



Inventateq



# POPULAR COURSES FROM INVENTATEQ



## 100% JOB ORIENTED TRAINING COURSES WE PROVIDE

❖ Digital Marketing (SEO/Social Media/PPC Google Adwords)	❖ BigData Hadoop Course	❖ Machine Learning Certification Training
❖ Best SEO Training	❖ Spark and Scala Course	❖ Block Chain Training Courses
❖ AWS Training	❖ DevOps Training	❖ Artificial Intelligence Courses
❖ Cloud Computing Training	❖ Angularjs and Node JS Training	❖ Tally ERP & GST Accounting classes
❖ Data Science Courses	❖ Weblogic Training	❖ Java course
❖ RPA Training	❖ .NET Technologies	❖ Software Testing Course, Manual Testing, QTP, UFT, Loadrunner
❖ Internet of Things IoT Training	❖ SOA Suite 11g	❖ C C++ Course
❖ Microsoft Azure Training	❖ Oracle DBA Training	❖ Tableau
❖ Data Warehousing - Informatica	❖ Oracle SQL, PLSQL, DBA, D2k, Apps	❖ PHP MYSQL, Python
❖ Selenium Training	❖ ETL Testing Course	❖ Human Resources Classes
❖ IBM Cognos 10 BI & Cognos TM1	❖ PPC Training Institute	❖ Microstrategy Course
❖ Qlikview (Designer, Developer, Publisher, Server)	❖ Autodesk Revit Training	❖ Cisco CCNA Networking
❖ IBM Websphere	❖ Autodesk CAD 2d and 3d Course	❖ SAS Training
❖ Learn ODI 11g	❖ Catia Training	❖ Softskill Courses
❖ Python Training	❖ Wiring Harness Training	❖ ITIL Certificate Training
❖ Abinitio Classes	❖ Content Writing Training	❖ SAP Courses
❖ Web Designing Course	❖ Siebel CRM Courses	❖ OBIEE
❖ Data Stage Classes	❖ Clear Case Training	

# 6 CENTERS AND COUNTING

## BTM LAYOUT

#687, 1st Floor, 29th Main, 3rd Cross,  
Coming from Silkboard, take left at AXA  
company signal, opp to OI Play school,  
Bangalore, Karnataka.  
Call us : 080 - 42108236  
Mail Us: inventateq.btm@gmail.com

## MARATHALLI

No.43, 3rd Floor, Marathahalli, from Old  
Brand Factory towards Old Airport, Next  
to Axis Bank,  
Bangalore, Karnataka  
Call us: 080 - 42024661  
Mail Us:  
inventateqq.marathahalli@gmail.com

## JAYA NAGAR

No. 16, 2nd Floor, 11th Main Road,  
Jayanagar 4th 'T' Block,  
Next to Jayanagar Head Post-office,  
Bangalore – 41.  
Call us: 080 - 41502315  
Mail Us:  
inventateq.jayanagar1@gmail.com

## RAJAJI NAGAR

No. 18, 2nd Floor, Mahakavi Kuvempu  
Rd, near Navrang Theatre Road, Opposite  
to Nethradhama Hospital MKK Road, 1st  
Block, Rajajinagar, Bengaluru, KA-560010.  
Call us 080 - 41713019  
Mail Us:  
inventateq.rajajinagar@gmail.com

## KALYAN NAGAR

No. 509, 4th Main, Kammanahalli Main Rd,  
HRBR Layout 3rd Block, HRBR Layout,  
Kalyan Nagar, Bengaluru, Karnataka 560043  
Near McDonald's, Opposite to Petrol Bank  
and Aptech  
Bangalore, Karnataka 560043.  
Call us +91-6366644707  
Mail Us: inventateq.kalyannagar@gmail.com

## CHENNAI

Velachery main road, No 2, 11th Main  
Road, G1 Es El En Manasarover, Vijaya  
nagar Opposite to Grand Mall, Near  
Chennai Silks, Next to Venkateswara  
Super Market, VELACHERY, Chennai,  
Tamilnadu-600042  
Call us +91-9840021877 | 044-43324939  
Mail Us: inventateq.chennai@gmail.com

# IT IS TIME YOU GET STARTED WITH FREE DEMO CLASSES



[www.inventateq.com](http://www.inventateq.com)

[info@inventateq.com](mailto:info@inventateq.com)



76-76-76-5421



Weekdays Batches,  
Weekend Batches