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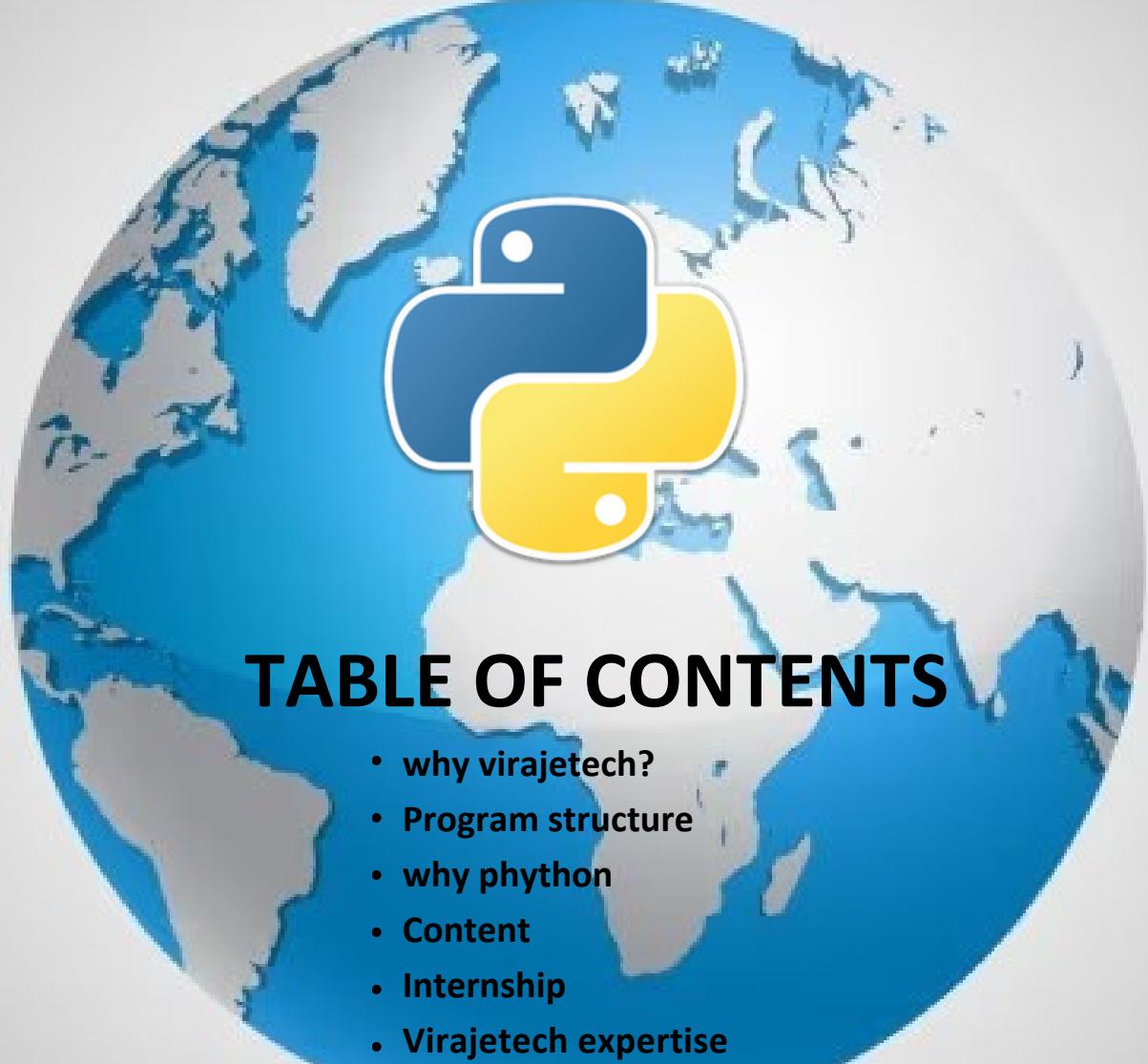


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# CERTIFIED GCP

## PROGRAM BROCHURE



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# WHY VIRAJETECH?

## “OUR VISION”

To be the safest, most progressive Technology Provider, relentless in the pursuit of Client and employee excellence

Virajetech's Placement Team has garnered a reputation for the industry's most exceptional placement records. Their dedicated efforts have facilitated the successful transition of thousands of aspirants into flourishing careers .



### EXPERT TRAINERS

10+year experienced and Industry Experts  
Elite Faculty from Prestigious universities with deep research and coaching expertise



### COMPREHENSIVE

30 hours & 700+ Learning Hrs.  
Syllabus aligned with virajetech standards and rigorously updated to match with latest industry requirements

### JOB ASSISTANCE

End to End job Support  
Personalized resume and interview preparation support Job updates and connects

### REALTIME EXPERIENCE

Projects and Internships  
20 capstone projects and 1 client projects with active interaction  
Internship -developing POCs

# PROGRAM STRUCTURE

- THE COURSE FOR BEGINNER'S PROFESSIONALS AND INTERMEDIATE LEARNERS IN THE FIELD OF
- FULL STACK THIS IS A CAREER- ORIENTED PROGRAM, DESIGNED TO IMPART A STRONG FOUNDATION



- PRE COURSE SELF-STUDY
- HIGH QUALITY VIDEOS
- EASY LEARNING APPROACH
- CERTIFICATIONS
- JOB READY PROGRAM



- LIVE TRAINING
- 30 HOUR A WEEK
- COMPREHENSIVE SYLLABUS
- HANDS-ON PROJECTS
- EXPERT TRAINERS AND MENTORS



# Python

# Python Programming in Django

## WHY PYTHON?

In the IT industry, a Python course is essential for professionals as Python's simplicity and versatility make it a go-to language for web development, data science, and AI. Mastering Python accelerates project timelines, enhances productivity, and opens doors to diverse career opportunities in the rapidly evolving tech landscape. Employers highly value Python proficiency, recognizing its pivotal role in driving innovation and efficiency. Python's extensive community support ensures access to a wealth of resources and collaborative problem-solving. The language's popularity is evident in its use across various domains, making it a valuable skill for staying competitive in the ever-changing IT industry.



## 1. Introduction to Django

- *Overview of Django web framework.*
- *History and evolution of Django.*
- *Django's design philosophy and MVC architecture.*
- *Key features of Django: ORM, URL routing, template engine.*
- *Setting up a Django project and virtual environment.*
- *Understanding Django applications and projects.*
- *Django's role in building scalable & maintainable web applications.*
- *Django's community and ecosystem.*
- *Real-world applications developed with Django.*
- *Exploring the Django official documentation*

## 2. Django Models and Databases

- *Creating Django models for database interactions.*
- *Understanding Django's Object-Relational Mapping (ORM).*
- *Defining relationships between models (OneToOne, ForeignKey, ManyToMany).*
- *Performing database migrations with Django.*
- *Querying databases using Django's ORM.*
- *Django Admin interface for managing database content.*
- *Using Django signals for handling database events.*
- *Data validation and constraints in Django models.*

- *Database optimization strategies in Django.*
- *Integrating third-party databases with Django.*

### 3.Hadoop MapReduce Programming with Python

- *Implementing views in Django.*
- *URL patterns and routing in Django.*
- *Django template engine for HTML rendering.*
- *Context data in Django views.*
- *Template inheritance and inclusion.*
- *Dynamic URL routing and parameters in views.*
- *Class-based views in Django.*
- *Middleware in Django applications.*
- *Handling forms in Django views.*
- *Authentication and authorization in Django.*

### 4.Django Forms and Validation

- *Creating and handling forms in Django.*
- *Form classes and widgets in Django.*
- *Form validation and error handling.*
- *Customizing form behavior in Django.*
- *File uploads with Django forms.*
- *Using Django ModelForms for database interactions.*
- *Formsets and handling multiple forms.*
- *Django's built-in form validation methods.*
- *Integrating third-party form libraries in Django.*
- *Best practices for form design and validation in Django.*

## 5.Django Admin and User Authentication

- *Exploring Django Admin interface features.*
- *Customizing and extending Django Admin.*
- *Managing users and groups in Django Admin.*
- *User authentication and authorization in Django.*
- *Role-based access control in Django.*
- *Implementing user registration and login.*
- *Password reset and recovery in Django.*
- *Social authentication with Django.*
- *Two-factor authentication in Django.*
- *OAuth integration for user authentication.*

## 6.Django REST Framework

- *Introduction to Django REST Framework.*
- *Building RESTful APIs with Django.*
- *Serializers and views in Django REST Framework.*
- *Authentication and permissions in Django REST APIs.*
- *Token-based authentication in Django.*
- *Versioning and documentation of Django APIs.*
- *Handling CRUD operations in Django REST Framework.*
- *Pagination and filtering in Django APIs.*
- *Testing Django APIs.*
- *Integrating Django REST Framework with Django applications*

## 7.Django Middleware and Signals

- ***Understanding Django middleware.***
- ***Writing custom middleware in Django.***
- ***Common use cases for Django middleware.***
- ***Django signals and event handling.***
- ***Creating and connecting signals in Django.***
- ***Use cases for Django signals in web applications.***
- ***Extending Django functionality with middleware.***
- ***Debugging and logging in Django applications.***
- ***Optimizing performance with middleware in Django.***
- ***Security considerations with Django middleware***

## 8.Django Testing and Debugging

- ***Overview of testing in Django.***
- ***Writing unit tests and test cases in Django.***
- ***Running tests with Django's test runner.***
- ***Django's debugging tools and techniques.***
- ***Identifying and fixing common Django errors.***
- ***Profiling and optimizing Django applications.***
- ***Logging and error handling strategies in Django.***
- ***Using third-party debugging tools with Django.***
- ***Continuous integration and testing pipelines for Django.***
- ***Best practices for testing and debugging in Django.***

## **9.Django Security Best Practices**

- **Common security vulnerabilities in web applications.**
- **Cross-Site Scripting (XSS) and Cross-Site Request Forgery (CSRF) protection.**
- **SQL injection prevention in Django.**
- **User authentication security in Django.**
- **Securing Django REST APIs.**
- **Content Security Policy (CSP) in Django.**
- **HTTPS implementation and SSL/TLS in Django.**
- **Django settings for enhanced security.**
- **Third-party security tools and libraries for Django.**
- **Regular security audits and updates in Django.**

## **10. Hadoop Case Studies and Best Practices**

- **Preparing Django applications for production.**
- **Choosing a web server for Django deployment.**
- **Deploying Django applications on cloud platforms (e.g., Python, Heroku).**
- **Containerization with Docker for Django applications.**
- **Setting up a reverse proxy for Django.**
- **Database optimization and scaling in Django.**
- **Caching strategies for Django applications.**
- **Load balancing and high availability in Django.**
- **Monitoring and logging in production Django environments.**
- **Strategies for scaling Django applications horizontally and vertically.**

## **11. Capstone Project**

- ***Implementing Advanced Capabilities with Python***
- ***User Testing and Iterative Improvement***
- ***Capstone Project Presentation and Review***
- ***Reflecting on the Evolution of the Capstone Project***
- ***Gathering User Feedback and Incorporating Changes***
- ***Deployment Strategies for the Enhanced Project***
- ***Showcasing the Impact of Enhancements***
- ***Final Presentation and Demo of the Enhanced Project***
- ***Future Considerations and Next Steps for the Project***

# INTERNSHIP

Explore valuable internship opportunities with us! Join a dynamic and innovative environment, collaborate on real-world projects, and enhance your skills. We're seeking motivated individuals with a passion for learning and strong communication skills. This internship offers hands-on experience, exposure to industry best practices, and potential career pathways.



## VIRAJETECH EXPERTISE CLASS



## VIRAJETECH EXPERTISE CLASS

## PLACEMENT ASSISTANCE TEAM



### PROJECT MENTORING

35 hours Live  
Mentoring in industry  
projects

### DOUBTS SESSIONS

Twice a week, Live  
doubts session from  
mentors and experts

### JOB COUNSELLING

Mapping your  
profile to suitable  
job role

### INTERVIEW QUESTIONS

Frequently asked  
interview questions  
course included

### ALUMNI CONNECT

Connect with  
successful Alumni to  
learn from experience

### RESUME SUPPORT

Personalized resume  
creation support from  
professionals

## PLACEMENT ASSISTANCE



Mercedes-Benz



# OUR LEARNER'S FEED BACK

## HIGHEST LEVEL OF CUSTOMER DELIGHT

 **ruchi s**  
1 review · 3 photos  
 3 months ago

VirajeTech has been a game-changer for me. Their training courses have provided me with the skills I needed to excel in my career 4X. The instructors and Arjun sir are passionate about what they do, and it shows in their teaching. Hands on and practical way of teaching, I highly recommend VirajeTech to anyone looking to further their knowledge and skills

 **Anoop G**  
6 reviews  
 3 months ago

Getting placed at Amency was a dream come true, and I owe a big thank you to VirajeTech for making it possible. The instructors were experts in their field, and they created a supportive learning environment. The hands-on approach and practical exercises made all the difference.

 **Sachidanand Shahane**  
3 reviews  
 7 months ago

I am part of the AWS Associate master Class. The course was designed in a fashion that we are able to cover most of the content in a very short time. our trainer Kumar sir clarified any doubt we had and also pushed us to do the practicals which is really helpful in the learning process. He having vast knowledge and experience in Devops and Multi cloud platform(AWS,Azure,GCP),he provide the opportunity to get as much knowledge and guidance as possible. each session are interactive has real time use cases.

 **Sayali Gawde**  
2 reviews  
 a year ago

Thanks for the AWS tutoring by Virajtech. The best decision I have taken in my career so far. Instructor was very helpful and gave all possible solutions related to the problem which we faced in real time scenarios. This is what I have experienced in this course, a very practical and beneficial one.

 **Piyush Poply**  
2 reviews  
 3 years ago

I am connected with this organization since its inception. This is one of the best places to learn, practice and grow your skills up to the standards of the industry. As in IT industry, maintaining your skills and updating yourself is the most important thing, we should never stop learning and this is exactly what this institute provides. The online classes are really great as well as the trainers.

 **Harpreet Singh**  
12 reviews  
 7 months ago

Give very detailed explanation and also live teaching classes. Covering all latest topics which for sure help in getting jobs in today's market

# ADMISSIONS AND CONTACTS

ENQUIRE FOR DETAILED INFORMATION FOR ENROLLMENT

DURATION:35 HOURS

LEARNING : ONLINE MODE

b 1st floor, 64, 3rd Cross Rd, Electronics City Phase

1, Electronic City, Bengaluru, Karnataka 560100

PHN NO:8618501719



SELF STUDY

**8 HRS/WEEK**



INSTRUCTOR LED LIVE ONLINE LEARNING

**8 HRS/WEEK**



PROJECTS & ASSESSMENTS

**4 HRS/WEEK**

**20 HOURS A WEEK COMMITMENT**



PYTHON IS RATED AS **THE TOP CAREER**  
HIGHEST PAID – RECESSION PROOF – MILLIONS OF JOBS



TAKE YOUR FIRST STEP TOWARDS PYTHON CAREER

**ENQUIRE NOW**

# THANK you



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