



## Pre-requisites: Python Basics

(Get self-paced Python programming video based training for just INR 590)

## Program 1: Advance Python

- Revisiting Python List & Dictionary
- Classes and Objects
- Decorators
- Regular Expression

## Program 2: Web Technologies

- Understanding web servers and web clients
- HTML Tags
- CSS Classes
- Using JavaScript & JQuery
- Front-end framework: Bootstrap and Materialize CSS
- Responsive Grid Design

## Program 3: Django framework

### Chapter 1: INTRODUCTION TO DJANGO

- What is Django
- HTTP request and response
- Django Model View Template architecture
- Django installation

- Virtual environment setup
- Starting your First Django Project

## Chapter 2: DJANGO APP ARCHITECTURE

- Django project environment
- Understanding *settings.py*
- Start a new Django app
- Django app components
- Adding the app to your project
- Creating Django Skeleton App

## Chapter 3: DJANGO MODELS

- Understating the Database tier of web-application
- Defining Django Models
- Understanding Model Fields & Options
- Importance of *\_\_str\_\_()* method
- Creating a Django Model
- Django *makemigrations* and *migrate*
- Django model relationships
- Changing the Database Engine

## Chapter 4: DJANGO ADMIN

- Enabling the Admin Interface
- Creating Admin Super User
- Creating other Users and Groups
- Add, Change, View, Delete permissions
- Register Model with Admin
- ModelAdmin and Admin Options

## Chapter 5: DJANGO URLS

- Django project *urls.py*
- Django app *urls.py*
- Django *urlpatterns* and *path*
- Django *TemplateView*
- Django URL patterns

## Chapter 6: DJANGO VIEWS

- Simple Generic Views
- Using Django HttpResponse object
- Understanding render() object
- Using redirect()
- Other Generic Views
- Class based views

## Chapter 7: DJANGO ORM & QUERYSETS

- Understanding Django ORM
- Django Queryset API
- Methods that return new QuerySets  
*all(), filter(), order\_by(), distinct(), values(), values\_list()*
- Methods that do not return new QuerySets  
*get(), count(), create(), update(), delete()*
- Two or more QuerySets  
*union(), intersection(), difference(), AND(&), OR(), Q objects*
- Field lookups  
*exact, iexact, contains, in, gt, gte, lt, lte, startswith, endswith, range*

## Chapter 8: DJANGO FORMS

- Understanding Django Forms
- ModelForm Class
- Form validation
- HTML forms
- Select field and dependent dropdown fields in django forms
- File field & Image fields in forms
- Date, Time and Duration Field in Django forms

## Chapter 9: DJANGO USERS & AUTH

- Django Users and Groups
- Django Authorizations: add, change, view, delete
- Django Authentication, login and logout
- Create a Django User Registration app

## Chapter 10: DJANGO TEMPLATES & STATIC FILES

- Understanding Django App Presentation Layers
- Creates templates and static directories

- Template tags and filters
- Template inheritance
- Static files reference: images, css and javascript

## **Chapter 11: DJANGO TESTS & EXCEPTIONS**

- Using Python's unittest library
- Writing Django Tests
- Debugging
- Django Exceptions

## **Chapter 12: DJANGO SECURITY & WEB APPLICATION TOOLS**

- Caching
- Cookies
- Django Emails
- Pagination
- Reusable Apps
- Session
- Sitemaps

### **Program 4: Databases**

- **CRUD Operations in SQLite3**
- **CRUD Operations in MySQL/MariaDB**
- **CRUD Operations in PostgreSQL**
- **CRUD Operations in MongoDB**
- **CRUD Operations in Neo4j**

### **Program 5: Django Rest API framework**

- **Introduction to Rest API**
- **Working with JSON files**
- **Serialization**
- **Routers**
- **Class based views**
- **API Permissions**
- **API request methods**

- Understanding response objects and headers
- Using CURL
- Using Postman
- Creating API endpoints in Django web application

## Program 6: Deployment

- Using Git and Bitbucket
- Amazon EC2 Services
- Microsoft Azure Cloud Platform
- Heroku Cloud Platform

## Project 1: Blog Application

Develop a Medium.com like micro blogging portal in Django

## Project 2: Discussion Forum

Develop a Quora.com like question answer cum discussion forum in Django

Or,

## Project 3: Job Portal

Develop a Naukri.com like mini job portal for candidates, universities and corporates using Django framework.

## Add-on:

1. Get FREE Django Tutorial access: <https://www.programink.com/django-tutorial/>
2. Get an extra FREE projects with source code to mention in your CV.
3. Get FREE course completion certification and recommendations.
4. Get additional project training for 6000-15000.
5. Get a chance to be part of industry projects at Programink.com
6. Get internship opportunities for 3<sup>rd</sup> and 4<sup>th</sup> year engineering students.

7. Enroll in Placement Guarantee Program for Freshers and Working Professionals.  
Charges: 5000 (initial deposit) + 15,000 (post placement).

### Duration: 2 months

- Format 1: 4 days a week \* 90 minutes per class
- Format 2: 3 days a week \* 120 minutes per class
- Format 3: 2 days a week \* 180 minutes per class

### Trainer: Ram Kumar



LinkedIn Profile: <https://www.linkedin.com/in/ram-kumar-programink/>

### Course Fee:

Sno.	Program	Unit Price
1	Object-oriented Python Programming	4,000
2	Web technologies	4,000
3	Django framework	10,000
4	Databases	4,000
5	Rest API	5,000
6	Deployment	3,000
	<b>Subtotal</b>	<b>30,000</b>
	<b>Discount</b>	<b>50%</b>
	<b>Net Payable</b>	<b>15,000</b>

### Preferred Payment Method:

- UPI Payment: 8073328732@yesbank

### Other Payment Options:

- Google Pay, Credit/Debit Card, Net banking
- Visit: <https://www.programink.com/billdesk/>