



# Django Framework

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*Dear Student,*

*Based upon your enquiry we are pleased to send you the course curriculum for Django framework*

*Given below is the brief description for the course you are looking for:*

pip

Creating and maintaining a virtual environment

Installation of Django

Creating and starting a project

Creating an app in project

Scripts (django-admin.py and manage.py)

Settings

Basic Terms

- Network
- Internet
- Client
- Server
- Types of server
- Web Server
- Web Client
- IP address
- Port number

More basics

- HTTP request
- HTTP response
- Static webpage processing
- Dynamic webpage processing
- Ways of HTTP request

**MVC**(Model View Controller)

The Model layer

- Using models
- Fields
- Field types

- Field options
- Automatic primary key fields
- Foreign Key
- Relationships
- Querysets
- Migrations
- Model registration

## The View layer

- URL dispatcher
- Writing views
- Mapping URLs to views
- Django shortcut methods
- Request and response objects
- Function based views
- Class-based views

## The Template layer

- Django template programming language
- Templates
- Variables
- Filters
- Tags
- Comments
- Template inheritance

## Managing static data(images,JavaScript,CSS)

## Form Handling

- Difference between GET and POST
- Building Forms
- ModelForms and forms.Form
- Retrieving submitted data

Authentication (User Registration, Login, Logout etc.)

File uploading and File downloading  
Redirection

Client side and server side validation

Sending email through coding

Timezones

Crispy forms

Slugs

Pagination

Fetch data from API

JSON parsing

reCAPTCHA free service from Google

Cookies

- Setting a cookie
- Accessing a cookie
- Expiring a cookie

Session

- Insert data in session
- Show data from session
- Update data in session
- Delete data from session

Database (SQLite/MySQL/MariaDB/PostgreSQL)

Basics of database

- What is data?
- What is information?
- What is table?
- What is database?
- What is RDBMS?
- What is SQL?

## Basics of SQL

- Creating a database
- Datatypes
- Creating a table
- Inserting data into table
- Show data from table
- Show filtered data from table
- Update data in table
- Delete data from table
- Drop table
- Drop database
- Constraints

## HTML5- Introduction to HTML

- What is HTML?
- Minimum structure of HTML
- What is tag in HTML?
- What is element in HTML?
- What is void element in HTML?
- What is Attribute?
- Nesting of Elements
- The <html> element
- The <head> element
- The <body> element
- The <title> element
- The DOCTYPE Declaration
- Heading elements (h1-h6)
- The <p> element
- The <b> element
- The <i> element
- The <u> element
- The <strong> element
- The <em> element
- The <sup> element
- The <sub> element
- The <figure> element
- The <figcaption> element
- The <img> element

- The <hr> element
- The <br> element
- The <a> element
- The <table> element
- The <tr> element
- The <th> element
- The <td> element
- The <input> element
- The <textarea> element
- The <select> element
- The <option> element
- The <optgroup> element
- The <fieldset> element
- The <legend> element
- HTML5 input types
- HTML5 input attributes
- The <ol> element
- The <ul> element
- The <li> element
- The <div> element
- The <span> element
- The <meta> element
- The <script> element
- The <link> element

## More HTML

- HTML Symbols
- Various attributes depend on elements
- Validating Form data using HTML5
- Embed youtube video in Webpage
- Some HTML5 elements

## CSS (Cascading style sheet)

### Basics of CSS

- What is CSS and why we need it?
- Internal CSS
- External CSS

- Inline CSS

## CSS selectors

- The type selector
- The class selector
- The id selector
- The attribute selector
- The descendant selector
- grouping selector
- The child selector
- The universal selector

## More CSS

- Block level tags and inline level tags
- Difference between div and span
- Fonts and typography
- Managing text styles
- CSS colors
- Positioning elements
- Pseudo classes
- CSS box model

## Templates

- HTML, CSS based templates
- Create website using templates

## Website Hosting

- Free subdomain
- Free hosting
- Free vs paid hosting

## Bootstrap 4

## Free Hosting of Django with database

## Project based on **Django**

## Python Trainer Profile



# Django Framework

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Mr. Vivek (Weekends)

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12 years IT Experience. Technical Expertise in Python and PYQT5 Framework.

## Python Trainer Profile

Mr. Naveen Arora (Weekdays)

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10 years IT Experience. Technical Expertise in Python and PYQT5 Framework.

Tech Altum

Counselling