1. **Explain Django Architecture?**

* Django based on **MVT** architecture.
* MVT is a software design pattern for developing a web application.
* The structure has 3 parts,
* **Model**

It going to act as the interface of data.

* **View**

It is user interface.

* **Template**

It consist of static part of desired HTML output.

1. **Explain the django project directory structure?**

* manage.py- This file is used to interact with your project via the command line(start the server, sync the database… etc.).
* init\_.py – It is a python package. It is invoked when the package or a module in the package is imported.
* settings.py – As the name indicates it contains all the website settings. In this file, we register any applications we create.

the location of our static files, database configuration details, etc.

* urls.py – In this file, we store all links of the project and functions to call.
* wsgi.py – This file is used in deploying the project in WSGI. It is used to help your Django application communicate with the webserver.

1. **What are models in Django?**

The model is a part of Django MVT architecture. It is going to act as the interface of your data.It is the logical data structure behind the

entire application and is represented by a database(generally relational

databases such as MySQL,Postgres).

1. **What are templates in django?**

A Django template is a text document or a Python string marked-up using the Django template language. Some constructs are recognized and interpreted by the template engine. The main ones are variables and tags. A template consists of static parts of the desired HTML output as well as some special syntax.

1. **What are views in django?**

The View is the user interface — what you see in your browser when you

render a website. It is represented by HTML/CSS/Javascript and Jinja

files. It takes http requests and returns http response, like HTML

documents.A web page that uses Django is full of views with different

tasks and missions.

1. **What is Django ORM?**

The Django web framework includes a default object-relational mapping

layer (ORM) that can be used to interact with data from various

relational databases such as SQLite, PostgreSQL, and MySQL. Django

allows us to add, delete, modify and query objects, using an API called

**ORM.**

1. **Define static files and explain their uses?**

Static files are filesthat don't change when your application is running. These files do a lot to improve your application, but they aren't dynamically generated by your Python web server like a usual HTML response. staticfiles provides a convenience management command for gathering static files in a single directory so you can serve them easily. This will copy all files from your static folders into the STATIC\_ROOT directory. Use a web server of your choice to serve the files.

1. **What is Django Rest Framework(DRF)**

Django rest framework(DRF) is a powerful and flexible toolkit for building web APIs.its main benefits is that it makes serialization much easier.it based on Django’s class-based views.it adopts implimentations like class-based views,forms,model,valiadtor and more.

1. **What is django-admin and manage.py and explain its commands?**

**django-admin** is Django’s command-line utility for administrative tasks. This document outlines all it can do.

Eg: django-admin startproject demoproject .

**Manage.py** is used to interact with project via the commands line(start

server,sync database…)

eg: python manage.py runserver

1. **What is jinja templating?**

Jinja is a powerful templating language for python.which allow to generate text output from input data and template.jinja templating syntax provide set of rules and constructs that define how templating language should be used and how the output should be generated.

**11.What are django URLs?**

Store all links of the project and functions to call.

Every page on the Internet needs its own URL. This way your

application knows what it should show to a user who opens that URL.

In Django, we use something called URLconf (URL configuration).

URLconf is a set of patterns that Django will try to match the requested

URL to find the correct view.

**12.What is defference between a project and an app in django?**

**Project**

* A project in Django is a python package that represents the whole web application.
* A project in Django basically contains the configuration and setting related to the entire website.
* A single project can also have multiple apps in it that can be used to implement some functionality.

**App**

* An app in Django is a sub-module of a project, and it is used to implement some functionality.
* we can refer to an app as a standalone python module that is used to provide some functionality to your project.
* We can create multiple apps within a single Django project. we can use an app from one Django project to another without making any changes to it.

**13.What are defferent model inheritance styles in django?**

**Abstract base class inheritence**

* This style is used when only want parent class to hold information that we don’t want to type out for each child model.

[**Multi-table inheritance**](https://docs.djangoproject.com/en/3.2/topics/db/models/#multi-table-inheritance)

* Use this when the parent class has common fields, but the parent class table also exists in the database all by itself.

[**Proxy models**](https://docs.djangoproject.com/en/3.2/topics/db/models/#proxy-models)

Use this when you want to modify python level behavior of the model.without changing the models fields.