DJANGO

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Role of web server:

-->Web server will provide environment to run our web application.

-->Web server is responsible to receive the request and formard request to the corresponding web component based on url-pattern and to provide response to the end user.

-->Django framework is responsible to provide development server. Even Django framework provides one inbuilt database sqlite-3

Note:-

Once we started server a special database related files will be generated in our project folder structure.

Creation of first web application:-

- Once we create Django project, we can create any number of applications in that project.

To create an application:-

D:\Django_20MAR_7PM\firstproject>py manage.py startapp firstapp

The following folder structure got created under firstapp:

Architecture of a application folder:-

D:.

| admin.py

| apps.py

| models.py

| tests.py

| views.py

| __init__.py

|

└——migrations

__init__.py

1.__init__.py:

It is a blank python script.

2.admin.py:

We can register our models in this file. Django will use these models with Django's admin interface.

3.apps.py:

In this file we have to specify application's specific configurations

4.models.py:

In this file we have to store application's data models.

5.tests.py:

In this file we have to specify test functions to test our code.

6.views.py:

In this file we have to save functions that handles requests and return required response.

7.Migrations folder:

This directory stores database specific information related to models.

Note:

The most commonly used files in every project are views.py and models.py

Activities required for application:

Activity-1: Add our application in settings.py, so that Django aware about our application.

- **settings.py**

```
INSTALLED_APPS = [
    'firstapp',  #It is a application name what we create.
]
```

Activity-2:

- Create a view function for our application in views.py
- View is resposible to prepare required response to the end user. i.e view contains business logic.

There are 2-types of views

1.Function based views

2.Class based views

- **views.py**

```
from django.http import HttpResponse
def wish(request):
  s = '<h1>Hello students welcome to Mahesh Sir django classes</h1>'
  return HttpResponse(s)
```

Note:

1.Each view will be specified as one function in views.py

2.In the above example wish is the name of the function which is nothing but one view.

3.Each view should take atleast one arg(request)

4.Each views should return HttpResponse object with required response.

View can accept request as input and perform required operations and provide proper response to the end user.

Activity-3:

Define url-pattern for our view in urls.py

This url-pattern will be used by end user to send request for our view.

The 'urlpatterns' list routes URL's to views.

- **urls.py**

```
from firstapp import views
urlpatterns = [
   path('admin/', admin.site.urls),
   path('greet/',views.wish)
]
```

Whenever end user sending the request with url-pattern:greet then wish() function will be executed and provide required response

Activity-4:

start server send the request.

http://127.0.0.1:8000/greet/