Mar 22

Q.Single project with multiple applications?

D:\Django_20MAR_7PM>django-admin startproject multiappProject

D:\Django_20MAR_7PM>cd multiappProject

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

D:\Django_20MAR_7PM\multiappProject>py manage.py startapp secondappp

-->Add apps in settings.py

- **FirstApp views.py**

```
from django.http import HttpResponse
def wish1(request):
    return HttpResponse('<h1>Hello This Is From First Application</h1>')
```

- **SecondApp:views.py**

```
from django.http import HttpResponse
def wish2(request):
    return HttpResponse('<h1>Hello This Is From Second Application</h1>')
```

- **urls.py**

1st way:

```
from firstapp import views as v1
from secondapp import views as v2
urlpatterns = [
    path('wish1/', v1.wish1),
    path('wish2/', v2.wish2),
```

]

2nd way:

```
from firstapp.views import wish1
from secondapp.views import wish2
urlpatterns = [
    path('wish1/', wish1),
    path('wish2/', wish2),
]
```

Defining URL patterns at Application level instead of Project level:

-->A Django project can contains multiple applications and each application contains multiple views. Defining url-pattern for all views of all applications inside urls.py file of project creates maintenance problem and reduces re-usability of applications.

-->We can solve this problem by defining url-pattern at application level instead of project level. For every application we have to create a separate urls.py file and we have to define all that application specific urls in that file.

-->We have to link this application level urls.py file to project level urls.py file by using include() function.

Ex:

```
D:\Django_20MAR_7PM>django-admin startproject baseproject
D:\Django_20MAR_7PM>cd baseproject
D:\Django_20MAR_7PM\baseproject>py manage.py startapp testapp
```

-->Add app in settings.py

- **views.py**

```
from django.http import HttpResponse
def first_view(request):
    return HttpResponse('<h1>First View Response</h1>')
```

```
def second_view(request):
    return HttpResponse('<h1>Second View Response</h1>')
def third_view(request):
    return HttpResponse('<h1>Third View Response</h1>')
def fourth_view(request):
    return HttpResponse('<h1>Fourth View Response</h1>')
def fifth_view(request):
    return HttpResponse('<h1>Fifth View Response</h1>')
```

-->Create a separate file urls.py file inside application

- **urls.py**

```
from django.urls import path
from . import views
urlpatterns = [
    path('first/', views.first_view),
    path('second/', views.second_view),
    path('third/', views.third_view),
    path('fourth/', views.fourth_view),
    path('fifth/', views.fifth_view),
]
```

Include this application level urls.py file inside project level urls.py file

- **project level urls.py**

```
from django.urls import path,include
urlpatterns = [
    path('admin/', admin.site.urls),
    path('testapp/', include('testapp.urls')),
```

]

-->Start server send request:

http://127.0.0.1:8000/testapp/first/

Note:

We can see re-usability of application in other projects just with only 2-lines addition.

1).settings.py--->Add application

2).urls.py-->just add:path('testapp/', include('testapp.urls')),

Advantages:

The main advantages of defining url-pattern at application level instead of project level are:

1.It promotes re-usability of django application across multiple projects.

2.Project level urls.py will be clean and more readable.
