About urls

urls

- Urls are requests from client for the specific resource on the web. You have learnt about how urls can be associated with views in urls.py of inner project folder.

- Imagine a scenario where dozens of applications are there in your project and each of which having several views of different urls (as we did in our last example of a website having two apps, testapp and exam). It is not a good idea to define all the urls at project level, because

    - It becomes messy to have all the urls in urls.py of inner project folder. It becomes clumsy and not easy to differentiate app level urls.

    - If you want to copy any app to another project you need to select app level urls and manually update them in other project in order to app work

- A better approach is to write app level urls in the urls.py of app directory.

- Here, we recreate our previous project with improved url arrangements.

Example illustrated from the scratch

- Steps to perform

    - Start project

    - Start application

    - Add app in project's setting.py

    - Define view functions

    - Define url patterns

    - Run Server

    - Send Requests

- Let's do all the above steps one by one.

Start Project
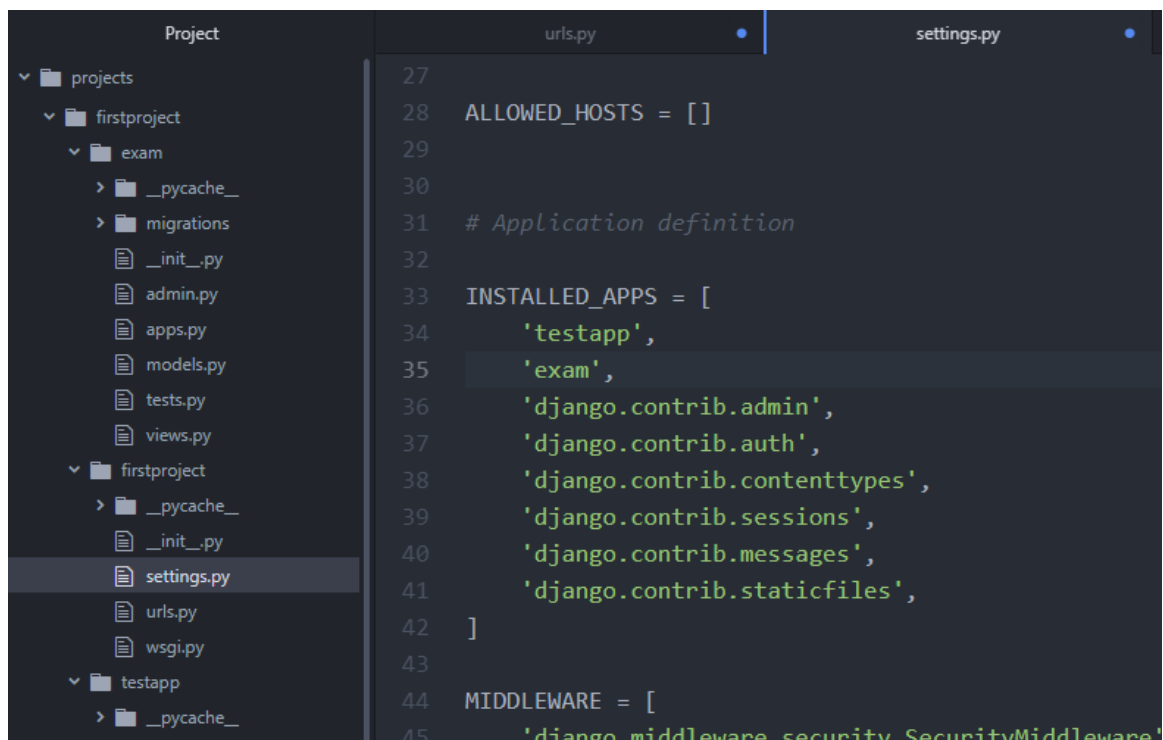
- Django-admin startproject firstproject

Create Application

- Python manage.py startapp testapp

- Python manage.py startapp exam

Add App in settings.py

- – 'testapp'

- – 'Exam'

Define View Function

- Define three functions in views.py of test app

    - – showContact() //email, address, mobile,etc

    - – about()   //About website

    - – greeting()   //for Landing Page

- Define two functions in views.py of exam app

    - – showTest()

    - – showResult()

Views.py of testapp

```
from django.http import HttpResponse

def greeting(request):
    s="<h1>Hello and Welcome to first View of testapp</h1><p>This is landing page</p>"
    return HttpResponse(s)

def showContact(request):
    s="<h1>Contact Page</h1>"
    s+="<p>Website: mysirg.com</p>"
    s+="<p>Mobile: 9009009001</p>"
    s+="<p>Email: something@gmail.com</p>"
    return HttpResponse(s)

def about(request):
    s="<h1>This is an about page</h1>"
    return HttpResponse(s)
```

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Views.py of exam

```
from django.http import HttpResponse

def showTest(request):
    s="<h1>This is show Test Page</h1>"
    return HttpResponse(s)
def showResult(request):
    s="<h1>This is show Result Page</h1>"
    return HttpResponse(s)
```

Define url patterns

- App level urls should not be written in urls.py in project folder

    - Create a separate urls.py in testapp folder

    - Create a separate urls.py in exam folder

- Do not forget to write import statements for views

    - from testapp import views [in urls.py of testapp]

    - from exam import views [in urls.py of exam]

- Urls.py of inner project folder

    - url('testapp',include('testapp.urls'))

- url('exam',include('exam.urls'))

```python
from django.urls import path
from django.conf.urls import include,url
urlpatterns = [
    url('testapp',include('testapp.urls')),
    url('exam',include('exam.urls')),
]
```

- Urls.py of testapp

    - url for about

        path('about',views.about)

    - url for showContact

        path('contact',views.showContact)

    - url for greeting (Landing page)

        url('^$',views.greeting)

- Urls.py of exam

    - url for showTest

        url('test', views.showTest)

    - url for showResult

        url('result', views.showResult)

Run server

    python manage.py runserver

Send Requests

- Localhost:8000/testapp/

- Localhost:8000/testapp/about

- Localhost:8000/testapp/contact

- Localhost:8000/exam/test

- Localhost:8000/exam/result