

Practical 2
APPLICATION DEVELOPMENT
FRAMEWORKS

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Aim : Hands-on for understanding Django Project Structure and Application Structure. Sample Hello world webpage.

○ Django Project Structure

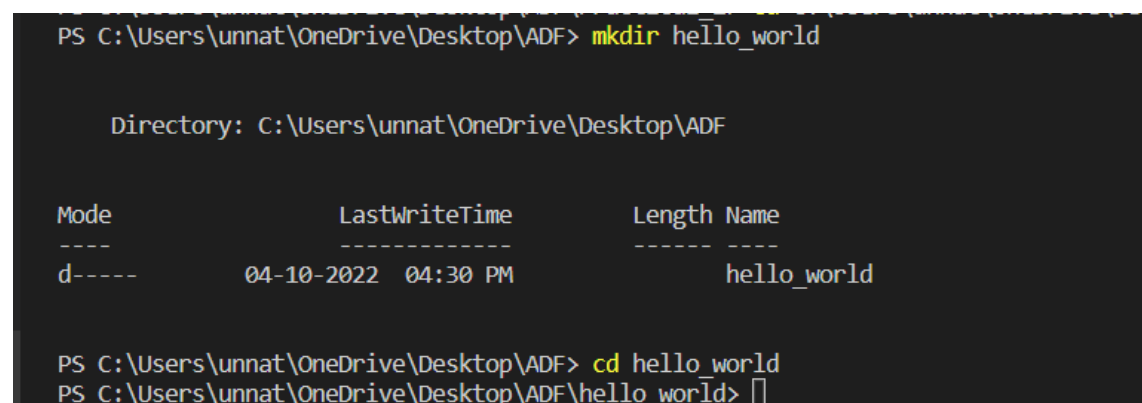
manage.py	Command line utility lets you interact with your Django project.
init.py	A blank Python script whose presence indicates to the Python interpreter that the directory is a Python package.
settings.py	Contains the configuration settings for the Django project.
urls.py	Contains URL patterns for the Django project.
wsgi.py	Contains WSGI configuration properties for the Django project.

○ Django App Structure

admin.py	File with admin definitions for the app - such definitions are needed to access model class instances from the Django admin.
apps.py	File with configuration parameters for the app.
models.py	File with database definitions (i.e., model classes) for the app.
tests.py	File with test definitions for the app.
views.py	File with view definitions (i.e., controller methods) for the app.
migrations	The directory that contains migrations applied to the app's database definitions (i.e., model classes).

○ Create a new directory hello_world

```
mkdir hello_world
cd hello_world
```



```
PS C:\Users\unnat\OneDrive\Desktop\ADF> mkdir hello_world

Directory: C:\Users\unnat\OneDrive\Desktop\ADF

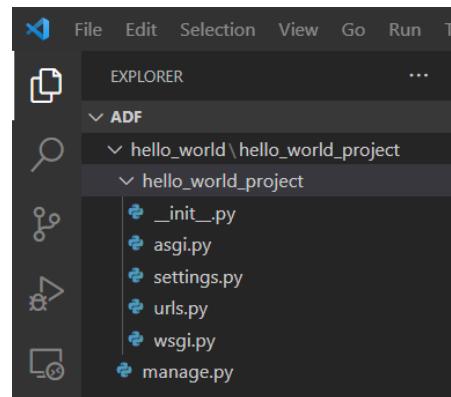
Mode                LastWriteTime         Length Name
----                -
d-----          04-10-2022  04:30 PM             hello_world

PS C:\Users\unnat\OneDrive\Desktop\ADF> cd hello_world
PS C:\Users\unnat\OneDrive\Desktop\ADF\hello_world> 
```

- **Creating Django project:**

```
django-admin startproject hello_world_project
```

This command will create following files ->

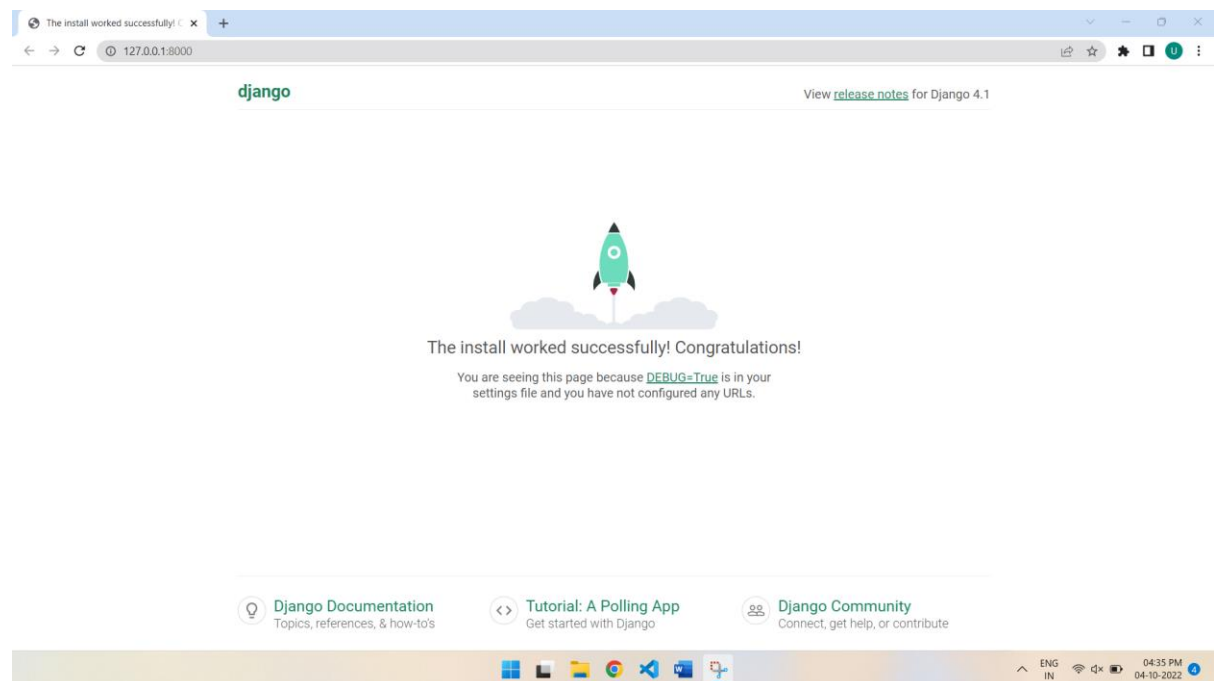


Apply migrations and test our project. Run these commands.

```
python manage.py migrate
```

```
python manage.py runserver
```

This will start the Django's built-in server now open your preferred browser and navigate to this address <http://127.0.0.1:8000/> if everything went well you should see the default Django's welcome page.

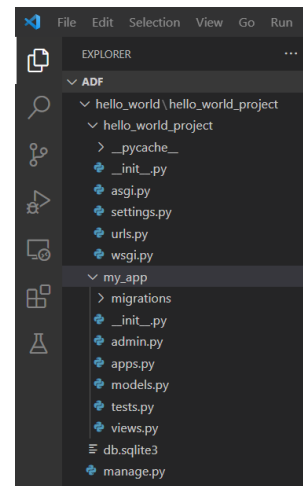


Press ctrl+c in the terminal window, to stop the server.

- **Create a Django app**

```
python manage.py startapp my_app
```

This will create another directory inside the project called `my_app`, now the project should look something like this



- **Add my_app in settings.py**

```
INSTALLED_APPS = [  
    'django.contrib.admin',  
    'django.contrib.auth',  
    'django.contrib.contenttypes',  
    'django.contrib.sessions',  
    'django.contrib.messages',  
    'django.contrib.staticfiles',  
    'my_app'  
]
```

- **Update my_app/views.py**

```
from django.shortcuts import render  
from django.http import HttpResponse  
  
def index(request):  
    return HttpResponse('Hello, World!')
```

- **Update hello_world_project/urls.py**

```
from django.contrib import admin  
from django.urls import path  
from my_app import views  
  
urlpatterns = [  
    path('admin/', admin.site.urls),  
    path('', views.index, name="homepage")  
]
```

- **Run server**

```
python manage.py runserver
```

Now visit <http://127.0.0.1:8000/> you should see Hello, World! written there.



****END****