virtualenv create (folder name can be anything)

why we use virtualenv????

Virtual environment will help us to run the same code if the version is changed or upgraded, generally one version code faces some difficulties in another version. Virtual environment helps us to remove the version dependency. So whenever we will create a project we should use virtual env to remove version dependencies.

```
Microsoft Windows [Version 10.0.17763.1]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Mr Hacker>cd Desktop

C:\Users\Mr Hacker\Desktop>virtualenv create
Using base prefix 'c:\\users\\mr hacker\\appdata\\local\\programs\\python\\python37-32'
New python executable in C:\Users\MRHACK~1\Desktop\create\Scripts\python.exe
Installing setuptools, pip, wheel...
done.

C:\Users\Mr Hacker\Desktop>cd
```

Cd create

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.17763.1]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Mr Hacker>cd Desktop

C:\Users\Mr Hacker\Desktop>virtualenv create
Using base prefix 'c:\\users\\mr hacker\\appdata\\local\\programs\\python\\python37-32'
New python executable in C:\Users\MRHACK~1\Desktop\create\Scripts\python.exe
Installing setuptools, pip, wheel...
done.

C:\Users\Mr Hacker\Desktop>cd create

C:\Users\Mr Hacker\Desktop\create>
```

Cd Script

```
C:\Users\Mr Hacker\Desktop>cd create

C:\Users\Mr Hacker\Desktop\create>cd script
The system cannot find the path specified.

C:\Users\Mr Hacker\Desktop\create>cd ls
The system cannot find the path specified.

C:\Users\Mr Hacker\Desktop\create>cd Scripts

C:\Users\Mr Hacker\Desktop\create\Scripts>
```

activate

```
C:\Users\Mr Hacker\Desktop\create>cd script
The system cannot find the path specified.

C:\Users\Mr Hacker\Desktop\create>cd ls
The system cannot find the path specified.

C:\Users\Mr Hacker\Desktop\create>cd Scripts

C:\Users\Mr Hacker\Desktop\create\Scripts>cd activate
The directory name is invalid.

C:\Users\Mr Hacker\Desktop\create\Scripts>activate

(create) C:\Users\Mr Hacker\Desktop\create\Scripts>
```

pip install django

```
(create) C:\Users\Mr Hacker\Desktop\create\Scripts>pip install django
Collecting django
  Using cached https://files.pythonhosted.org/packages/a0/36/463632a2e9161a7e713488d719a280e8cb0c7e3a66ed32a32e801891ca
e/Django-2.2.7-py3-none-any.whl
Requirement already satisfied: pytz in c:\users\mrhack~1\desktop\create\lib\site-packages (from django) (2019.3)
Requirement already satisfied: sqlparse in c:\users\mrhack~1\desktop\create\lib\site-packages (from django) (0.3.0)
Installing collected packages: django
Successfully installed django-2.2.7
```

cd..

```
(create) C:\Users\Mr Hacker\Desktop\create\Scripts>cd..

(create) C:\Users\Mr Hacker\Desktop\create>
```

django-admin startproject crud

```
(create) C:\Users\Mr Hacker\Desktop\create>django-admin startproject crud

(create) C:\Users\Mr Hacker\Desktop\create>
```

cd crud

```
(create) C:\Users\Mr Hacker\Desktop\create>cd crud

(create) C:\Users\Mr Hacker\Desktop\create\crud>
```
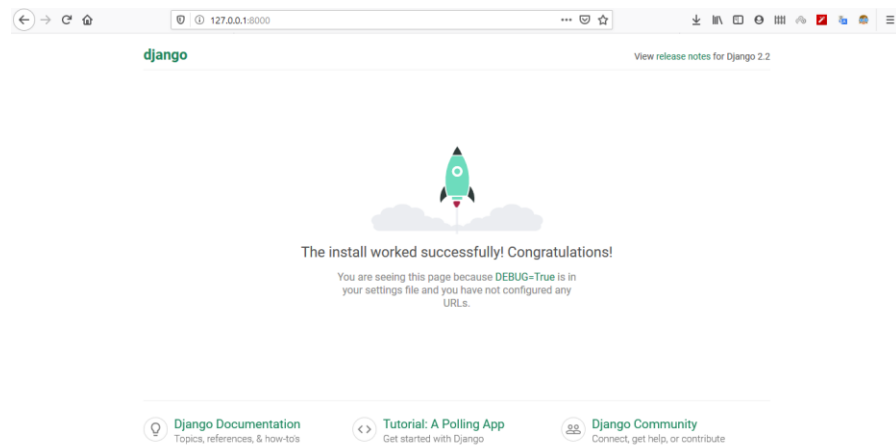
manage.py runserver

```
(create) C:\Users\Mr Hacker\Desktop\create\crud>manage.py runserver
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).

You have 17 unapplied migration(s). Your project may not work proper
 auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.
November 23, 2019 - 01:36:01
Django version 2.2.7, using settings 'crud.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
```

http://127.0.0.1:8000/

python manage.py startapp crudapp

```
Microsoft Windows [Version 10.0.17763.1]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Mr Hacker\Desktop\create\crud>python manage.py startapp crudapp

C:\Users\Mr Hacker\Desktop\create\crud>_
```

Name	Date modified	Type	Size
crud	11/23/2019 1:35 AM	File folder	
crudapp	11/23/2019 1:55 AM	File folder	
db.sqlite3	11/23/2019 1:36 AM	SQLITE3 File	0 KB
manage.py	11/23/2019 1:28 AM	Python File	1 KB

******output*****

Now go to settings.py file and add created app name in the INSTALLED_APPS list (Line 33)

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

manage.py runserver

```
C:\Users\Mr Hacker\Desktop\create\crud>manage.py runserver
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).

You have 17 unapplied migration(s). Your project may not work properly
 auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.
November 23, 2019 - 01:58:58
Django version 2.2.5, using settings 'crud.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
```

Now go to views.py file to create a view. And then add

from django.shortcuts import render

from django.http import HttpResponse

 # Create your views here.

def index(request):

  return HttpResponse("Hello World!!!!!!")

```
settings.py                              views.py
1   from django.shortcuts import render
2   from django.http import HttpResponse
3
4   # Create your views here.
5
6   def index(request):
7       return HttpResponse("Hello World!!!!!!")
8   |
```

We just create a view in views.py and now go to urls.py and set thr URL to see the views in running server. Also need to import views from existing app


```
from django.contrib import admin
from django.urls import path
from crudapp import views

urlpatterns = [

    path('admin/', admin.site.urls),
    path('home/', views.index, name="index"),
]
```
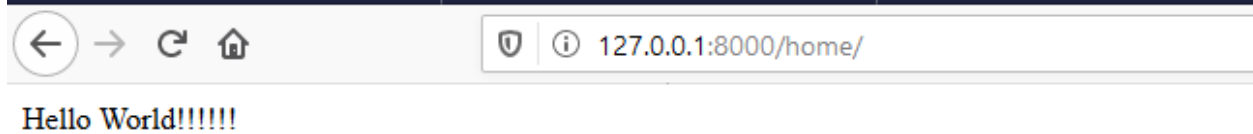
manage.py runserver


```
C:\Users\Mr Hacker\Desktop\create\crud>manage.py runserver
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).

You have 17 unapplied migration(s). Your project may not work properly
 auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.
November 23, 2019 - 01:58:58
Django version 2.2.5, using settings 'crud.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
```

View is working now

← → C ⌂   🛡 ⓘ 127.0.0.1:8000/home/

Hello World!!!!!!

Now we are going to map all URL for our project. We will create a new URL file inside the app folder and then add the file location to urls.py file which inside the project folder.

```python
from django.contrib import admin
from django.urls import path
from django.conf.urls import include
from crudapp import views


urlpatterns = [
    path('admin/', admin.site.urls),
    path('crud/', include('crudapp.urls')),
]
```

New urls.py file inside the app folder

```python
from django.urls import path
from django.conf.urls import include
from crudapp import views


urlpatterns = [

    path('home/', views.index, name="index"),
]
```

And the view

← → C ⌂   🛡 ⓘ 127.0.0.1:8000/crud/home/

Hello World!!!!!!