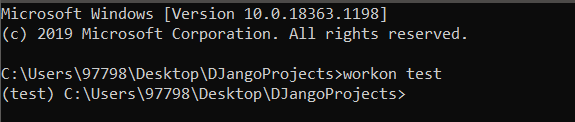
# Next target: CRUD for user to upload image and edit user’s details

# STEPS TO BUILD A DJANGO SYSTEM:

1. Open Command Prompt
2. Create Virtual environment
3. Work on environment:

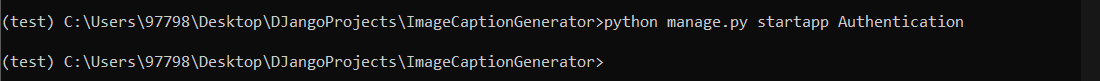


1. Set up Django Project:  
   - django-admin.py startproject project-name



1. Set up Django App:

-python manage.py startapp ImageCaptionGenerator



1. Open editor. Let’s begin some coding. :D



1. Create urls.py in your app i.e In Authentication:

from django.urls import path

from .import views

urlpatterns = [

    path('',views.index,name="index"),

]

1. In views.py of app i.e. In Authentication:  
   from django.shortcuts import render

From django.http import HttpResonse

#Create your views here

def index(request):

return HttpResponse(“Hello”);

1. In urls.py of app  
   from django.urls import path,include

Urlpatterns = [

path(‘ ’,include(‘Authenticaiton.urls’)),

]

1. Work on Templates  
   \* Create folder in root directory name “templates”  
   \* Create index.html   
    type hello world  
   \* IN SETTINGS of project,

NOTE: import os   
 TEMPLATES=[

'DIRS':[os.path.join(BASE\_DIR,'templates'),

]

1. In views.of app (“Authentication”)  
     
   def index(request):

return render(request,’index.html’)

1. In case if you use static files like images,js,css:  
   1. Create folder: static in project and copy all (js,css,plugins)

2. IN Settings:

STATICFILES\_DIRS = [

os.path.join(BASE\_DIR,'static')]

STATIC\_ROOT = os.path.join(BASE\_DIR,'assets')  
  
 3. Create folder with django code  
 python manage.py collectionStatic  
 4. load static files with {% load static %}

href="{% static 'styles/bootstrap.....css' %}" or

style="background-image:url(/static/images/travello.jpg)"

# WORKING WITH INDEX.HTML:

* Download free templates from net
* To import js,css and plugins : create assets folder and copy all folders (i.e images,js,css,plugins) to this folder
* In settings,   
  STATIC\_URL = ‘/static/’  
  STATICFILES\_DIRS = [ os.path.join(BASE\_DIR, ‘foldername i.e assets’) ]  
  STATIC\_ROOT = os.path.join(BASE\_DIR, ‘assets’) = django will put all these files in assets folder.
* Run ‘ python manage.py collectstatic ’ in terminal   
  : you will get separate assets folder
* First load static files in html pages: {% load static %}
* Now change url i.e href of styles into django understandable language

href="{% static 'styles/bootstrap.....css' %}"

# PASSING DYNAMIC DATA IN HTML:

* In views.py of app name i.e Authentication   
  def index(request):  
   return render(request,”index.html”, {‘price’,700})
* In index.html (your html page)  
  $price is written where you want to display
* In models , Create variables   
  from ……  
    
  class Destination:

Id: int  
caption: str  
img: str  
caption: str

* In views.py, you need to import from model and make object of class  
  from .models import Destination // importing from model  
    
  def index(request):  
   dest1 = Destination()  
   //Assign value to variable  
   dest1.name = ‘Kathamndu’  
   dest1.desc =’Capital City of Nepal’  
   dest1.price=7000  
   return render(request,”index.html”, {‘dest1’: dest1})
* In index.html (your html page)  
  {{dest1.name}} is written where you want to display
* TIME TO CHANGE IMAGE DYNAMIC :D :P  
  dest1.img =’dest\_1.jpg’
* def index(request):  
   dest1 = Destination()  
   //Assign value to variable  
   dest1.name = ‘Kathamndu’

dest1.img =’dest\_1.jpg’  
 dest1.desc =’Capital City of Nepal’  
 dest1.price=7000  
  
//Assign value to variable  
 dest2 = Destination()  
 dest2.name = ‘Kathamndu’

dest2.img =’dest\_1.jpg’  
 dest2.desc =’Capital City of Nepal’  
 dest2.price=7000  
  
//Assign value to variable  
 dest3 = Destination()  
 dest3.name = ‘Kathamndu’

dest3.img =’dest\_1.jpg’  
 dest3.desc =’Capital City of Nepal’  
 dest3.price=7000

dests = [dest1,dest2,dest3]  
 return render(request,”index.html”, {‘dests’: dests})

* Let’s put it in loop in html:  
  At top: {% static “images” as baseUrl %} // images is used as baseUrl which become variable  
    
  {% for dest in dests %}  
   <img src=”{{baseUrl}}/{{dest.img}}”> // you cannot use ginger inside ginger format  
   {{dest.name}}  
  {% endfor %}

# WORKING WITH DATABASE (Models and Migration) ORM

* Default database : sqlite3

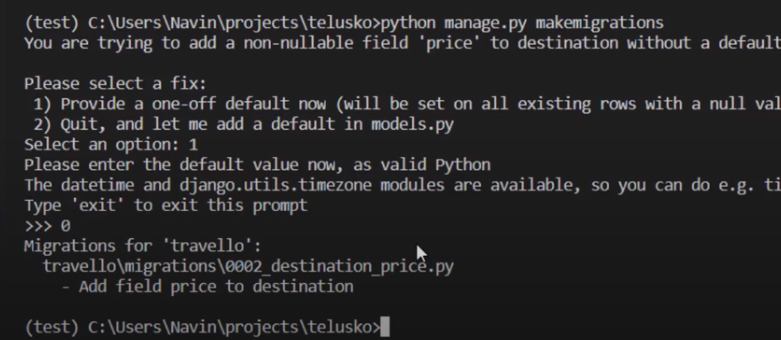
\*Convert class into model: Django fields  
class Datas(models.Model):

        caption = models.CharField(max\_length=400)

        img = models.ImageField(upload\_to='pics')

* In settings.py, mention your app in installed apps   
    
  INSTALLED\_APPS = [   
   ‘Authentication.apps.AuthenticaitonConfig’,// ’APP\_NAME.apps.APP\_NAMEConfig   
  ]
* Migrate models to database: run command python manage.py makemigrations
* If pillow is not install, install pillow with command pip install Pillow
* In terminals, run command  
  python manage.py makemigrations  
  python manage.py migrate

# Re-Migrations:

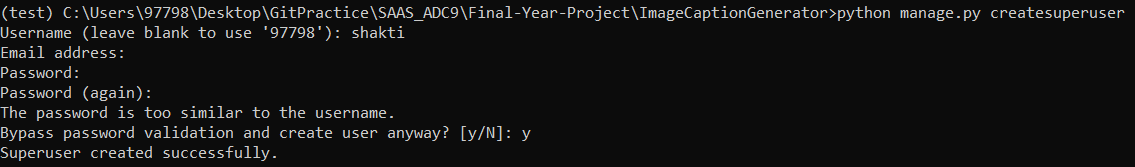


* Run command : python manage.py migrate   
  to bring changes in database table

# Fetch datas from database through admin page rather than form html

* Localhost:8000/admin : Admin Page
* In terminal run help code
* Create super user  
   python manage.py createsuperuser

user:shakti

password: shakti123  
  


* In admin.py of project, we need to register the model   
  from .models import modelname //import model  
    
  admin.site.register(modelname)
* We need to add path for media in settings.py   
  MEDIA\_URL = '/media/'

MEDIA\_ROOT = os.path.join(BASE\_DIR,'media')

* We need to add url in urls.py of project i.e ImageCaptionGenerator  
    
  from django.conf import settings

from django.conf.urls.static import static

urlpatterns = urlpatterns + static(settings.MEDIA\_URL,,document\_root =settings.MEDIA\_ROOT)

* TO fetch datas from database, we need to make some change in views.py of your app i.e Authentication  
    
  datas = Datas.objects.all()
* At last for displaying image, we need to change code in index.html  
  <img src=”{{data.img.url}}” alt=””>

# How to redirect pages through href in html

  path('register',views.register,name="register"),

#Create method in views.py   
def register(request):

    return render(request, 'register.html’)

<li><a href="register">Register</a></li>

# User Authentication:

* Register
* from django.shortcuts import render,redirect
* from django.contrib import messages
* from django.http import HttpResponse
* from .models import Datas
* from django.contrib.auth.models import User,auth
* # Create your views here.
* def index(request):
* datas = Datas.objects.all()
* return render(request, 'index.html',{'datas': datas})
* def register(request):
* if request.method == 'POST':
* first\_name = request.POST['first\_name']
* last\_name = request.POST['last\_name']
* username = request.POST['username']
* password1 = request.POST['password1']
* password2 = request.POST['password2']
* email = request.POST['email']
* if password1==password2:
* if User.objects.filter(username=username).exists():
* messages.info(request,'(Already taken username)')
* return redirect('register')
* elif User.objects.filter(email=email).exists():
* messages.info(request,'(Already taken email)')
* return redirect('register')
* else:
* user = User.objects.create\_user(username=username,password=password1,email=email,first\_name=first\_name,last\_name=last\_name)
* user.save()
* else:
* messages.info(request,'(Password not matched)')
* return redirect('register')
* return redirect('/')
* else:
* return render(request, 'register.html')
* def login(request):
* return render(request, 'login.html')

Register.html:

<!doctype html>

<html lang="en">

  <head>

    <meta charset="utf-8">

    <meta http-equiv="X-UA-Compatible" content="IE=edge">

    <meta name="viewport" content="width=device-width, initial-scale=1">

    <!-- The above 3 meta tags \*must\* come first in the head; any other head content must come \*after\* these tags -->

    <title>Login Page</title>

    <!-- Bootstrap -->

    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css" integrity="sha384-HSMxcRTRxnN+Bdg0JdbxYKrThecOKuH5zCYotlSAcp1+c8xmyTe9GYg1l9a69psu" crossorigin="anonymous">

    <!-- HTML5 shim and Respond.js for IE8 support of HTML5 elements and media queries -->

    <!-- WARNING: Respond.js doesn't work if you view the page via file:// -->

    <!--[if lt IE 9]>

      <script src="https://oss.maxcdn.com/html5shiv/3.7.3/html5shiv.min.js"></script>

      <script src="https://oss.maxcdn.com/respond/1.4.2/respond.min.js"></script>

    <![endif]-->

    <style type="text/css">

      .bg{

        background: url("b.jpg");

         width:100%; height: 100vh;

        color: white;

      }

      .forms{

        border:0px solid #fff;

        padding: 8%;

        margin-top: 15vh;

        -webkit-box-shadow: 10px 10px 45px 3px rgba(0,0,0,0.75);

        -moz-box-shadow: 10px 10px 45px 3px rgba(0,0,0,0.75);

        box-shadow: 10px 10px 45px 3px rgba(0,0,0,0.75);

      }

    #emailHelp{

      color: black;

    }

    h1 {

        color: black;

    }

    label {

        color: black;

    }

    </style>

  </head>

  <body>

    <div class="container-fluid bg">

      <div class="row">

        <div class="col-md-4"></div>

        <div class="col-md-4">

        <form class="forms" action="register" method="post">

          {% csrf\_token %}

        <div class="form-group">

          <h1>SIGN UP</h1>

          <h5 style="color: black;">

            {% for message in messages%}

            {{message}}

            {% endfor%}</h5>

          <label >First Name</label>

          <input type="text" class="form-control" id="first\_name"  placeholder="First Name" name="first\_name">

        </div>

        <div class="form-group">

          <label >Last Name</label>

          <input type="text" class="form-control" id="last\_name"  placeholder="Last Name" name="last\_name">

        </div>

        <div class="form-group">

          <label >User Name</label>

          <input type="text" class="form-control" id="username"  placeholder="User Name" name="username">

        </div>

        <div class="form-group">>

        <label >Email</label>

          <input type="email" class="form-control" id="email" aria-describedby="emailHelp" placeholder="Enter email" name="email">

          <small id="emailHelp" class="form-text text-muted">We'll never share your email with anyone else.</small>

        </div>

        <div class="form-group">

          <label >Password</label>

          <input type="password" class="form-control" id="password1" placeholder="Password" name="password1">

        </div>

        <div class="form-group">

            <label >Confirm Password</label>

            <input type="password" class="form-control" id="" placeholder="Confirm Password" name="password2">

          </div>

        <button type="submit" class="btn btn-success btn-block">Submit</button>

      </form>

        </div>

        <div class="col-md-4" >

        </div>

      </div>

    </div>

  </body>

</html>

* LOGIN
* def login(request):
* if request.method == 'POST':
* username = request.POST['username']
* password = request.POST['password']
* user = auth.authenticate(username=username,password=password)
* if user is not None:
* auth.login(request,user)
* return redirect("/")
* else:
* messages.info(request,'Invalid Credentials')
* return redirect('login')
* else:
* return render(request, 'login.html')

login.html

<!doctype html>

<html lang="en">

  <head>

    <meta charset="utf-8">

    <meta http-equiv="X-UA-Compatible" content="IE=edge">

    <meta name="viewport" content="width=device-width, initial-scale=1">

    <!-- The above 3 meta tags \*must\* come first in the head; any other head content must come \*after\* these tags -->

    <title>Login Page</title>

    <!-- Bootstrap -->

    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css" integrity="sha384-HSMxcRTRxnN+Bdg0JdbxYKrThecOKuH5zCYotlSAcp1+c8xmyTe9GYg1l9a69psu" crossorigin="anonymous">

    <!-- HTML5 shim and Respond.js for IE8 support of HTML5 elements and media queries -->

    <!-- WARNING: Respond.js doesn't work if you view the page via file:// -->

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      <script src="https://oss.maxcdn.com/respond/1.4.2/respond.min.js"></script>

    <![endif]-->

    <style type="text/css">

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        color: white;

      }

      .forms{

        border:0px solid #fff;

        padding: 8%;

        margin-top: 30vh;

        -webkit-box-shadow: 10px 10px 45px 3px rgba(0,0,0,0.75);

        -moz-box-shadow: 10px 10px 45px 3px rgba(0,0,0,0.75);

        box-shadow: 10px 10px 45px 3px rgba(0,0,0,0.75);

      }

    #emailHelp{

      color: black;

    }

    h1 {

        color: black;

    }

    label {

        color: black;

    }

    </style>

  </head>

  <body>

    <div class="container-fluid bg">

      <div class="row">

        <div class="col-md-4"></div>

        <div class="col-md-4">

        <form class="forms" action="login" method="post">

        {% csrf\_token %}

        <div class="form-group">

          <h1>LOG IN</h1>

          <h5 style="color: black;">

            {% for message in messages%}

            {{message}}

            {% endfor%}</h5>

          <label >User Name</label>

          <input type="text" class="form-control" id="username" aria-describedby="userNameHelp" placeholder="Enter User Name" name="username">

          <small id="emailHelp" class="form-text text-muted">We'll never share your email with anyone else.</small>

        </div>

        <div class="form-group">

          <label >Password</label>

          <input type="password" class="form-control" id="" placeholder="Password" name="password">

        </div>

        <div class="form-group form-check">

          <input type="checkbox" class="form-check-input" id="">

          <label class="form-check-label">Remember me</label>

        </div>

        <button type="submit" class="btn btn-success btn-block">Submit</button>

        <br>

        <div class="form-group form-check">

          <label class="form-check-label"><a href="register">Does not have an account?</a></label>

        </div>

      </form>

        </div>

        <div class="col-md-4"></div>

      </div>

    </div>

  </body>

</html>

* LOGOUT

Urls.py

from django.urls import path

from .import views

urlpatterns = [

    path('',views.index,name="index"),

    path('register',views.register,name="register"),

    path('login',views.login,name="login"),

    path('logout',views.login,name="logout"),

]

View.py:

def logout(request):

    auth.logout(request)

    return redirect('/')