

Code for Backend development for Virtual Trail Room Feature in Ecommerce Platforms

Create Folder :-

```
>mkdir company  
>cd company
```

Create Virtual Environment:-

```
>python3 -m venv env  
>source env/bin/activate    #Activating environment
```

Install Django:-

```
>pip install django
```

Create a project:-

```
>django-admin startproject ecommerce_project  
>cd ecommerce_project
```

Startup a app(virtual_trail):-

```
>python manage.py startapp virtual_trail
```

Install DRF:-

```
>pip install djangorestframework
```

Install POSTGRESQL:-

```
>brew install postgresql    #for macos users
```

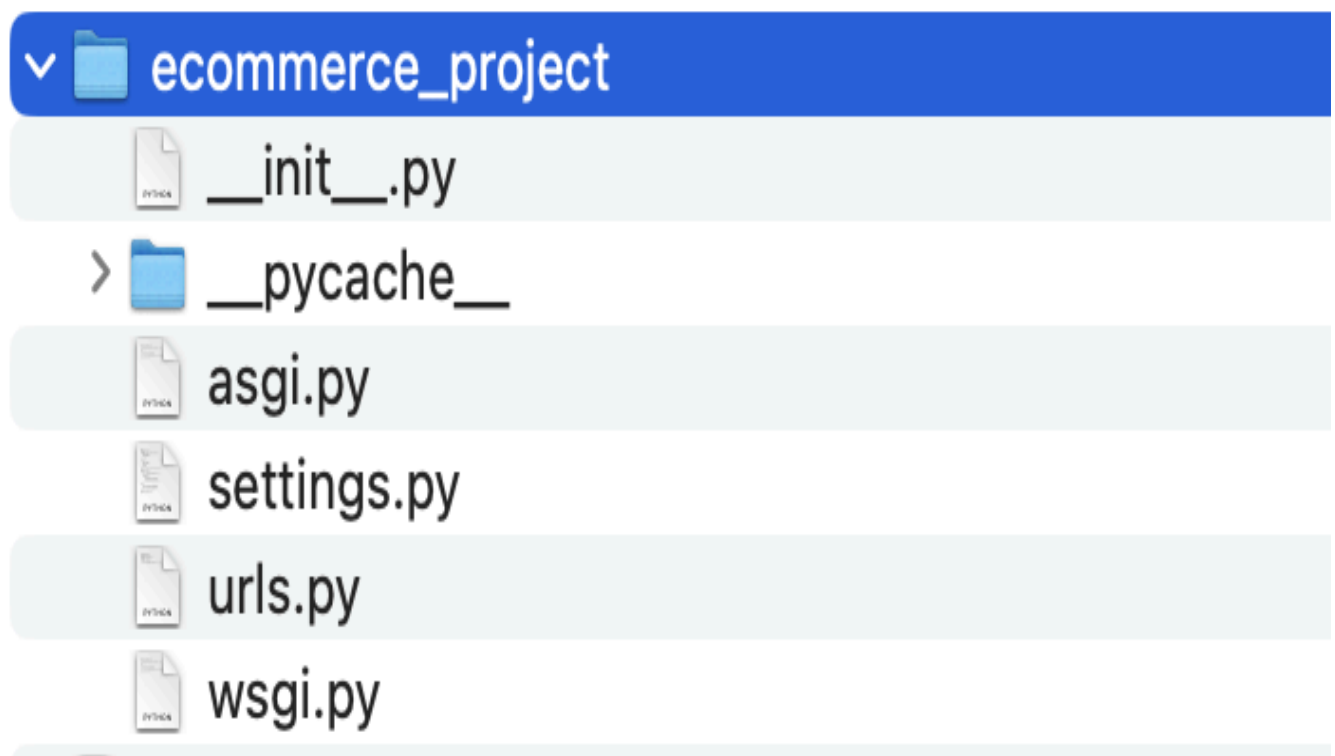
for windows they have to install explicitly and they have to add path

Install Psycopg2:-(Adapter)

```
>pip3 install psycopg2
```

Under ecommerce_project directory existing files will be there.

We have to write code in that files if not there create new ones.



1.settings.py

```
# ecommerce_project/settings.py
import os
from django.core.management.utils import get_random_secret_key
DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.postgresql',
        'NAME': 'fundsroom',
        'USER': 'vamsi',
        'PASSWORD': 'passme@123',
        'HOST': 'localhost',
        'PORT': '5432',
    }
}

INSTALLED_APPS = [
    # ...
    'django.contrib.contenttypes',
    'django.contrib.auth',
    'django.contrib.admin',
    'django.contrib.messages',
    'rest_framework',
    'virtual_trail',
]

BASE_DIR = os.path.dirname(os.path.dirname(os.path.abspath(__file__)))
# ... rest of your settings ...
# settings.py
SECRET_KEY = get_random_secret_key()

TEMPLATES = [
    {
        'BACKEND': 'django.template.backends.django.DjangoTemplates',
        'DIRS': [os.path.join(BASE_DIR, 'templates')],
        'APP_DIRS': True,
        'OPTIONS': {
            'context_processors': [
                'django.template.context_processors.debug',
                'django.template.context_processors.request',
                'django.contrib.auth.context_processors.auth',
                'django.contrib.messages.context_processors.messages',
            ],
        },
    },
]
]
```

```

MIDDLEWARE = [
    # ...
    'django.contrib.sessions.middleware.SessionMiddleware',
    'django.contrib.auth.middleware.AuthenticationMiddleware',
    'django.contrib.messages.middleware.MessageMiddleware',

    # ...
]

DEBUG = True
ALLOWED_HOSTS = ['localhost', '127.0.0.1']
ROOT_URLCONF = 'ecommerce_project.urls'

```

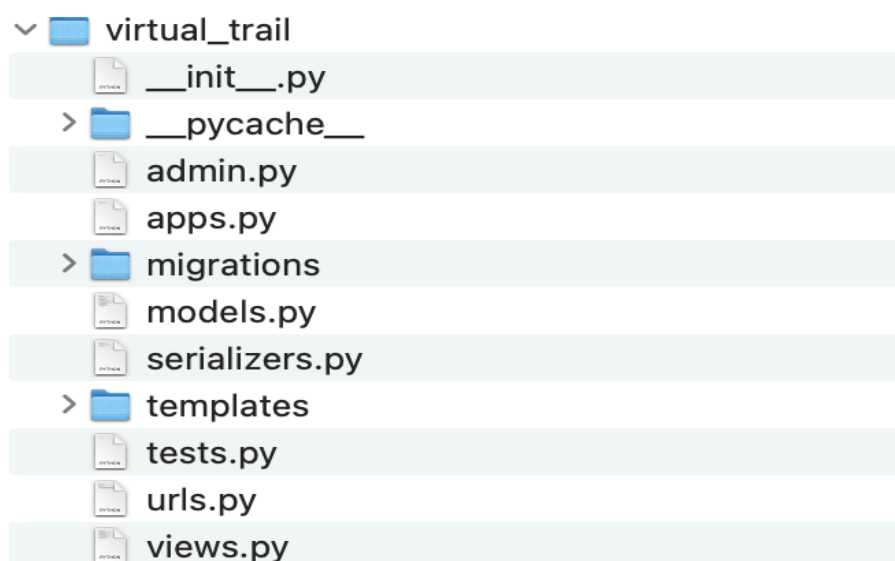
2.urls.py

```

# ecommerce_project/urls.py
from django.contrib import admin
from django.urls import path, include
from virtual_trail.views import home_view
urlpatterns = [
    path('admin/', admin.site.urls),
    path('api/', include('virtual_trail.urls')),
]
urlpatterns = [
    path('admin/', admin.site.urls),
    path('api/', include('virtual_trail.urls')),
    path('', home_view, name='home'), # Set the root URL to the home_view
]

```

Under Virtual_trail directory



1.apps.py

```
from django.apps import AppConfig

class VirtualTrailConfig(AppConfig):
    default_auto_field = 'django.db.models.BigAutoField'
    name = 'virtual_trail'
```

2.models.py

```
# virtual_trail/models.py
from django.db import models
from django.contrib.auth.models import User

class Customer(models.Model):
    user = models.OneToOneField(User, on_delete=models.CASCADE)
    # Add additional customer-related fields like sizes, preferences, etc.
    sizes = models.CharField(max_length=255)
    # ...

class Product(models.Model):
    name = models.CharField(max_length=100)
    description = models.TextField()
    image = models.ImageField(upload_to='product_images/')
    sizes_available = models.CharField(max_length=255)
    # ...

class VirtualTrailSession(models.Model):
    user = models.ForeignKey(User, on_delete=models.CASCADE)
    product = models.ForeignKey(Product, on_delete=models.CASCADE)
    selected_size = models.CharField(max_length=50)
    timestamp = models.DateTimeField(auto_now_add=True)
    # Add other fields as needed

class VirtualTrailRoom(models.Model):
    name = models.CharField(max_length=255)
    description = models.TextField()
    created_at = models.DateTimeField(auto_now_add=True)
    updated_at = models.DateTimeField(auto_now=True)
    def __str__(self):
        return self.name
```

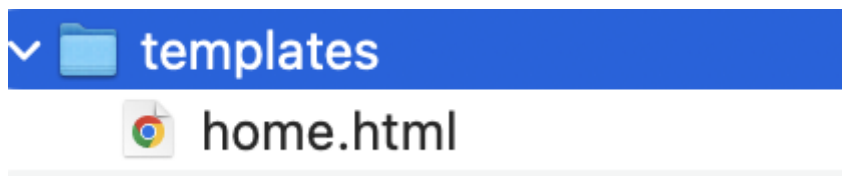
3.serializers.py

```
# virtual_trail/serializers.py
from rest_framework import serializers
from .models import Product, VirtualTrailRoom

class ProductSerializer(serializers.ModelSerializer):
    class Meta:
        model = Product
        fields = '__all__'

class VirtualTrailRoomSerializer(serializers.ModelSerializer):
    class Meta:
        model = VirtualTrailRoom
        fields = '__all__'
```

4.Create a template folder inside that create a Html file



Home.html

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Welcome to the Virtual Trial Room</title>
  <style>
    body {
      font-family: 'Arial', sans-serif;
      background-color: #f2f2f2;
      color: #333;
      margin: 20px;
    }
    h1 {
      color: #4285f4;
    }
    p {
      font-size: 16px;
      line-height: 1.6;
    }
    /* Add more styles as needed */
  </style>
</head>
<body>
  <h1>Welcome to the Virtual Trial Room</h1>
  <p>
    The Virtual Trial Room offers an immersive shopping experience, allowing you to try on clothes virtually
    before making a purchase. Browse our latest collection and visualize how the items look on you without
    stepping into a physical store.
  </p>
  <p>
    Explore our diverse range of clothing options, from casual wear to formal attire. With the Virtual Trial Room,
    you can experiment with styles and find the perfect fit without leaving the comfort of your home.
  </p>
  <p>
    Start your virtual shopping journey today and enjoy the convenience of trying before you buy.
  </p>
  <marquee direction="right"><b> <p> Adding the front end part will give Virtual Trail room feature efficiently</p></b></marquee>
</body>
</html>
```

5.urls.py

```
# ecommerce_project/urls.py
from django.contrib import admin
from django.urls import path, include
from virtual_trail.views import home_view
urlpatterns = [
    path('admin/', admin.site.urls),
    path('api/', include('virtual_trail.urls')),
]
urlpatterns = [
    path('admin/', admin.site.urls),
    path('api/', include('virtual_trail.urls')),
    path('', home_view, name='home'), # Set the root URL to the home_view
]
```

6.views.py

```
# virtual_trail/views.py
from django.shortcuts import render
from rest_framework import generics
from virtual_trail.models import Product, VirtualTrailRoom
from .serializers import ProductSerializer, VirtualTrailRoomSerializer

class ProductListView(generics.ListCreateAPIView):
    queryset = Product.objects.all()
    serializer_class = ProductSerializer

class ProductDetailView(generics.RetrieveUpdateDestroyAPIView):
    queryset = Product.objects.all()
    serializer_class = ProductSerializer

class VirtualTrailRoomListView(generics.ListCreateAPIView):
    queryset = VirtualTrailRoom.objects.all()
    serializer_class = VirtualTrailRoomSerializer

class VirtualTrailRoomDetailView(generics.RetrieveUpdateDestroyAPIView):
    queryset = VirtualTrailRoom.objects.all()
    serializer_class = VirtualTrailRoomSerializer

def home_view(request):
    return render(request, 'home.html')
```

After successfully saving these files

To Make Migrations:-

>python manage.py makemigrations

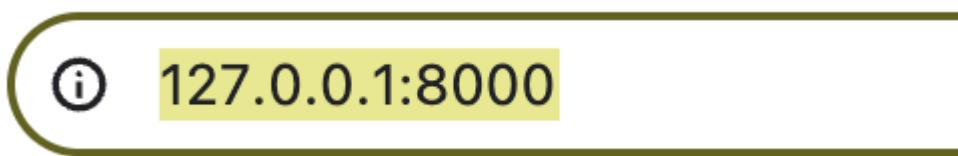
To Migrate:-

```
>python manage.py migrate
```

To Run Server:-

```
>python manage.py runserver
```

Open chrome and type this:



Output:

Welcome to the Virtual Trial Room

The Virtual Trial Room offers an immersive shopping experience, allowing you to try on clothes virtually before making a purchase. Browse our latest collection and visualize how the items look on you without stepping into a physical store.

Explore our diverse range of clothing options, from casual wear to formal attire. With the Virtual Trial Room, you can experiment with styles and find the perfect fit without leaving the comfort of your home.

Start your virtual shopping journey today and enjoy the convenience of trying before you buy.

Adding the front end part will give Virtual Trail room feature efficiently