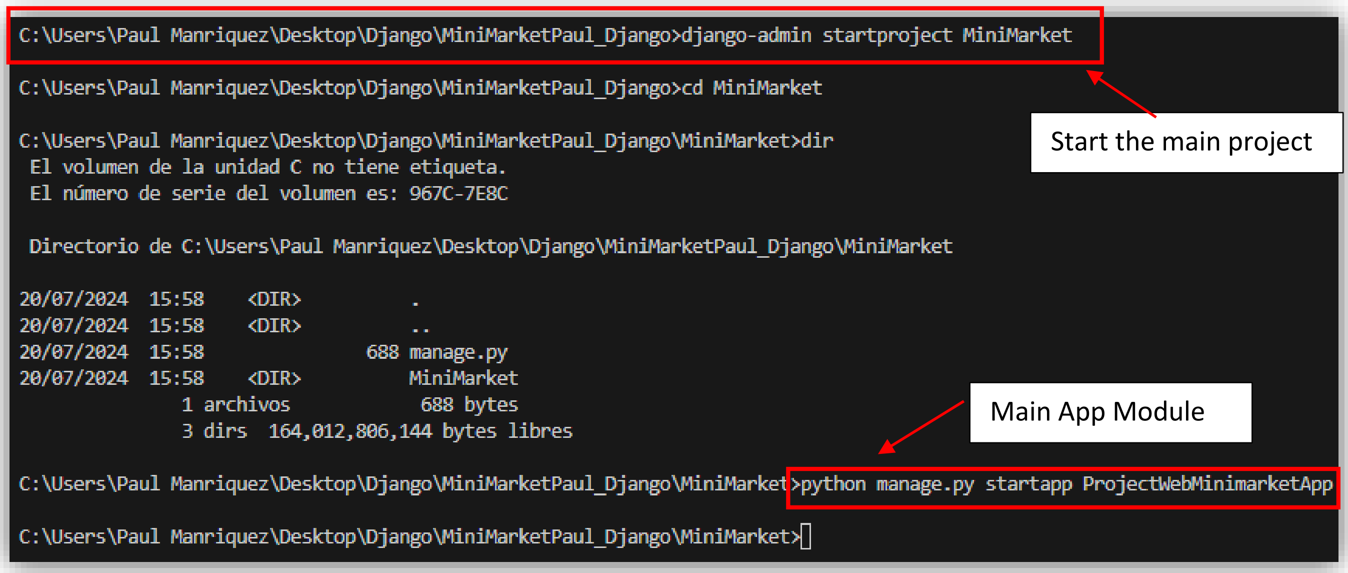
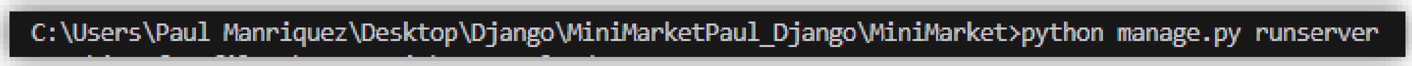
Mini Market Paul Django Project

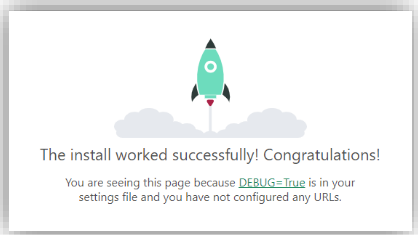
1.- Start the project



```
C:\Users\Paul Manriquez\Desktop\Django\MiniMarketPaul_Django>django-admin startproject MiniMarket

C:\Users\Paul Manriquez\Desktop\Django\MiniMarketPaul_Django>cd MiniMarket

C:\Users\Paul Manriquez\Desktop\Django\MiniMarketPaul_Django\MiniMarket>dir
 El volumen de la unidad C no tiene etiqueta.
 El número de serie del volumen es: 967C-7E8C

 Directorio de C:\Users\Paul Manriquez\Desktop\Django\MiniMarketPaul_Django\MiniMarket

20/07/2024  15:58    <DIR>          .
20/07/2024  15:58    <DIR>          ..
20/07/2024  15:58               688 manage.py
20/07/2024  15:58    <DIR>          MiniMarket
               1 archivos            688 bytes
               3 dirs  164,012,806,144 bytes libres

C:\Users\Paul Manriquez\Desktop\Django\MiniMarketPaul_Django\MiniMarket>python manage.py startapp ProjectWebMinimarketApp

C:\Users\Paul Manriquez\Desktop\Django\MiniMarketPaul_Django\MiniMarket>
```



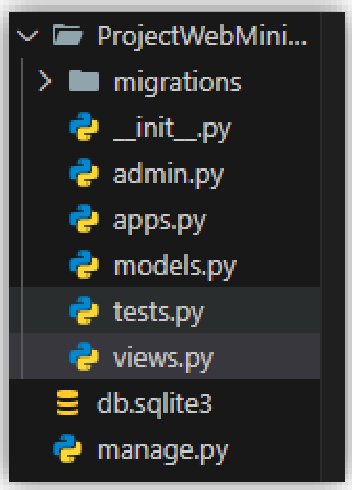
```
C:\Users\Paul Manriquez\Desktop\Django\MiniMarketPaul_Django\MiniMarket>python manage.py runserver
```

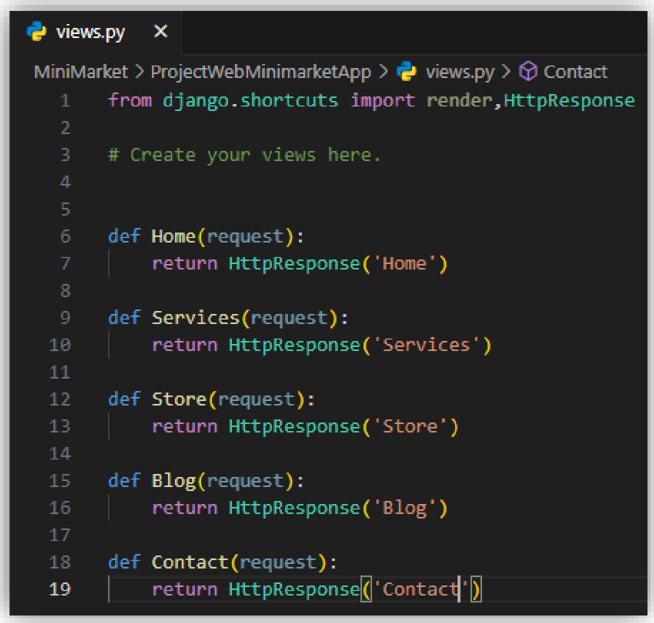


The install worked successfully! Congratulations!

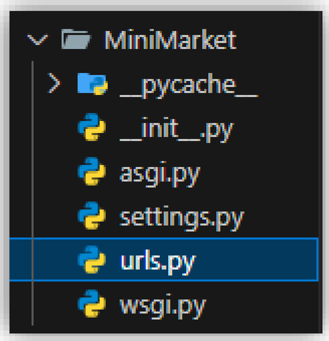
You are seeing this page because DEBUG=True is in your settings file and you have not configured any URLs.

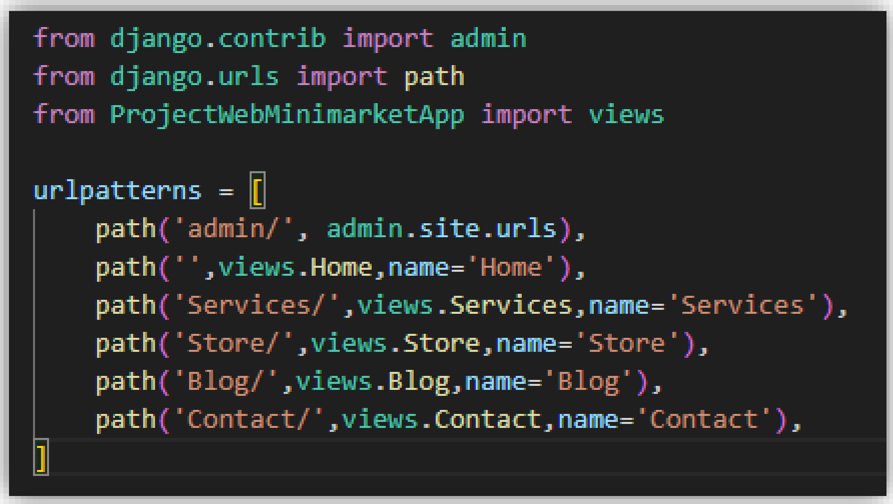
2.- Create your views and urls





```python
from django.shortcuts import render,HttpResponse

# Create your views here.


def Home(request):
    return HttpResponse('Home')

def Services(request):
    return HttpResponse('Services')

def Store(request):
    return HttpResponse('Store')

def Blog(request):
    return HttpResponse('Blog')

def Contact(request):
    return HttpResponse('Contact')
```

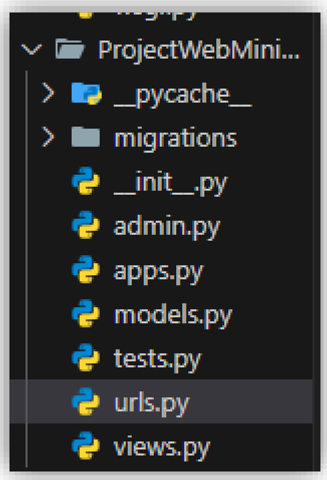


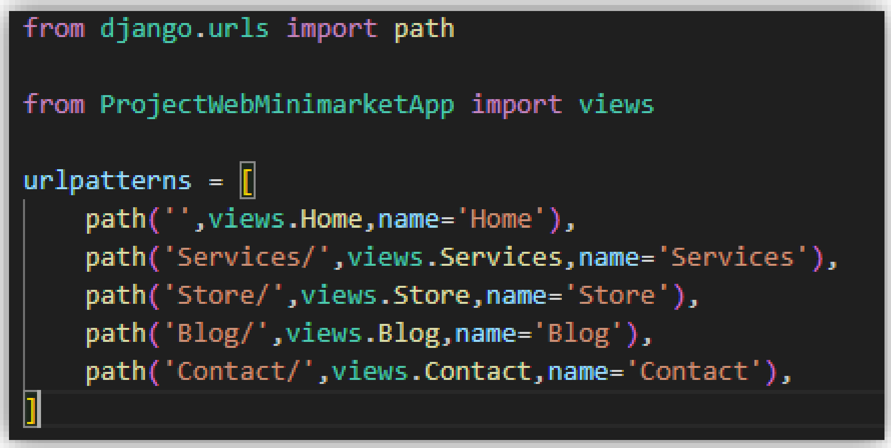


```python
from django.contrib import admin
from django.urls import path
from ProjectWebMinimarketApp import views

urlpatterns = [
    path('admin/', admin.site.urls),
    path('',views.Home,name='Home'),
    path('Services/',views.Services,name='Services'),
    path('Store/',views.Store,name='Store'),
    path('Blog/',views.Blog,name='Blog'),
    path('Contact/',views.Contact,name='Contact'),
]
```

3.- Create a urls for the application to be more readable and modularization of the app.

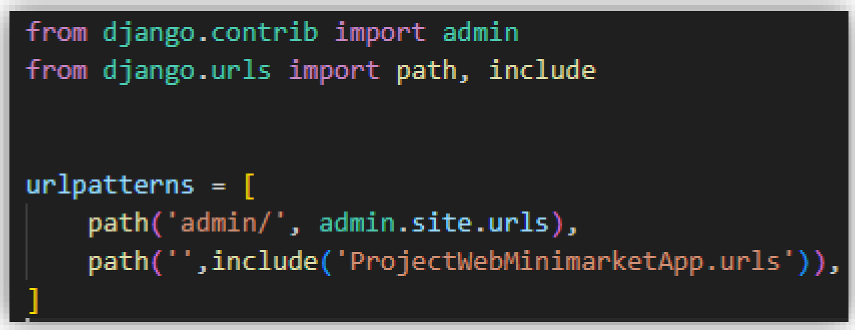
Create a urls file in your app and add your urls





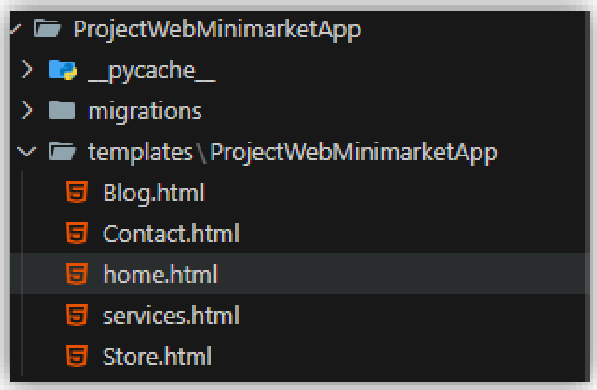
```python
from django.urls import path

from ProjectWebMinimarketApp import views

urlpatterns = [
    path('',views.Home,name='Home'),
    path('Services/',views.Services,name='Services'),
    path('Store/',views.Store,name='Store'),
    path('Blog/',views.Blog,name='Blog'),
    path('Contact/',views.Contact,name='Contact'),
]
```

Link the urls of the app in the main urls file

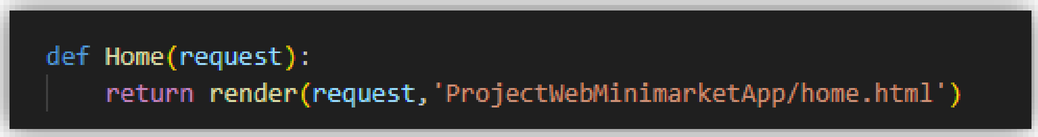


```python
from django.contrib import admin
from django.urls import path, include


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

4.- Create the html files for your app that will be used in the views and update the view file of the application to render your html files

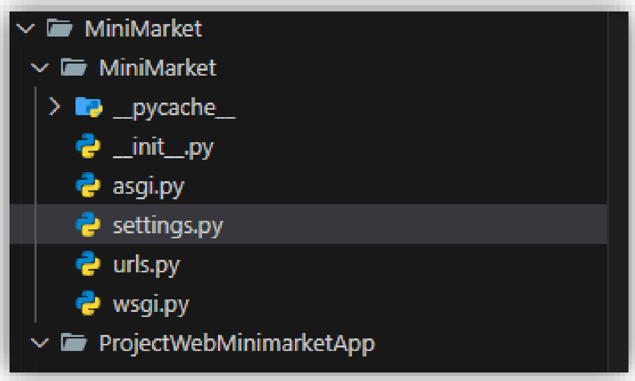


```
ProjectWebMinimarketApp
  _pycache_
  migrations
  templates\ProjectWebMinimarketApp
    Blog.html
    Contact.html
    home.html
    services.html
    Store.html
```

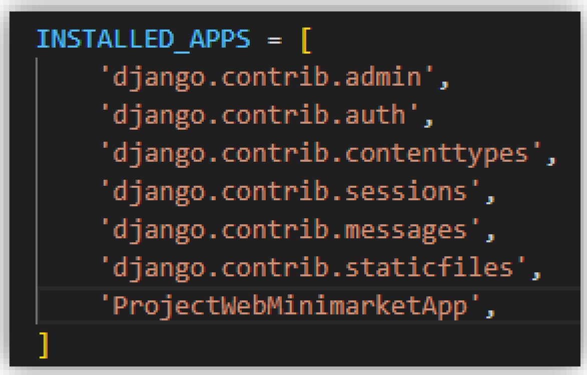


```python
def Home(request):
    return render(request,'ProjectWebMinimarketApp/home.html')
```

5.- Register the app as installed app in the main project

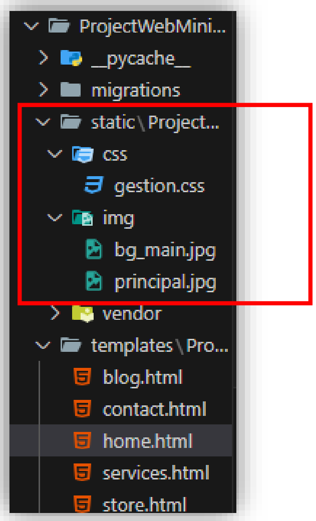


```
MiniMarket
  MiniMarket
    _pycache_
    _init_.py
    asgi.py
    settings.py
    urls.py
    wsgi.py
  ProjectWebMinimarketApp
```



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

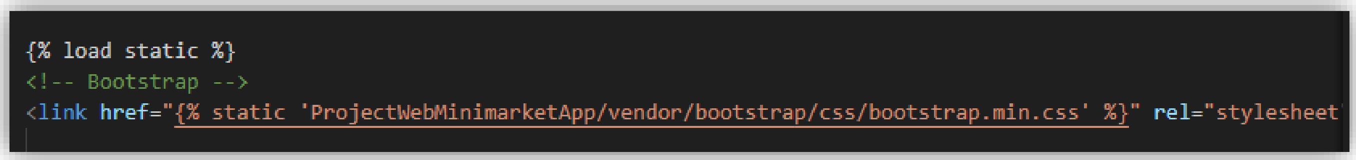
6.- Create and configure the directories, that you will need in your html files, in this project we are using bootstrap and pre-build templates, but you can use your own html/css/bootstrap/js files.



```
ProjectWebMini...
  _pycache_
  migrations
  static\Project...
    css
      gestion.css
    img
      bg_main.jpg
      principal.jpg
    vendor
  templates\Pro...
    blog.html
    contact.html
    home.html
    services.html
    store.html
```

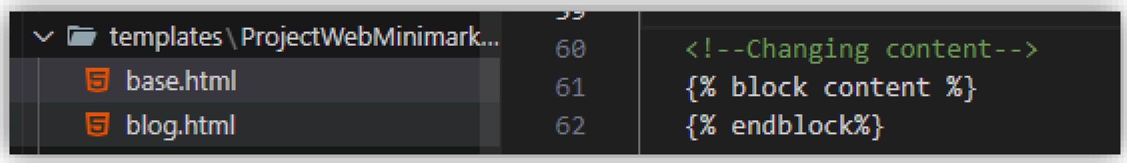
7.- Since the template in this project was already created, the goal on this project is to learn how to navigate and change the current project based on your needs. In this part we modify the project, added some style and create the base.html, that are the codes that we will use along all our webpage.

This is a trick to load a current folder and avoid using all the url for the file were is



```
{% load static %}
<!-- Bootstrap -->
<link href="{% static 'ProjectWebMinimarketApp/vendor/bootstrap/css/bootstrap.min.css' %}" rel="stylesheet
```

Create the base of the pages of this app module



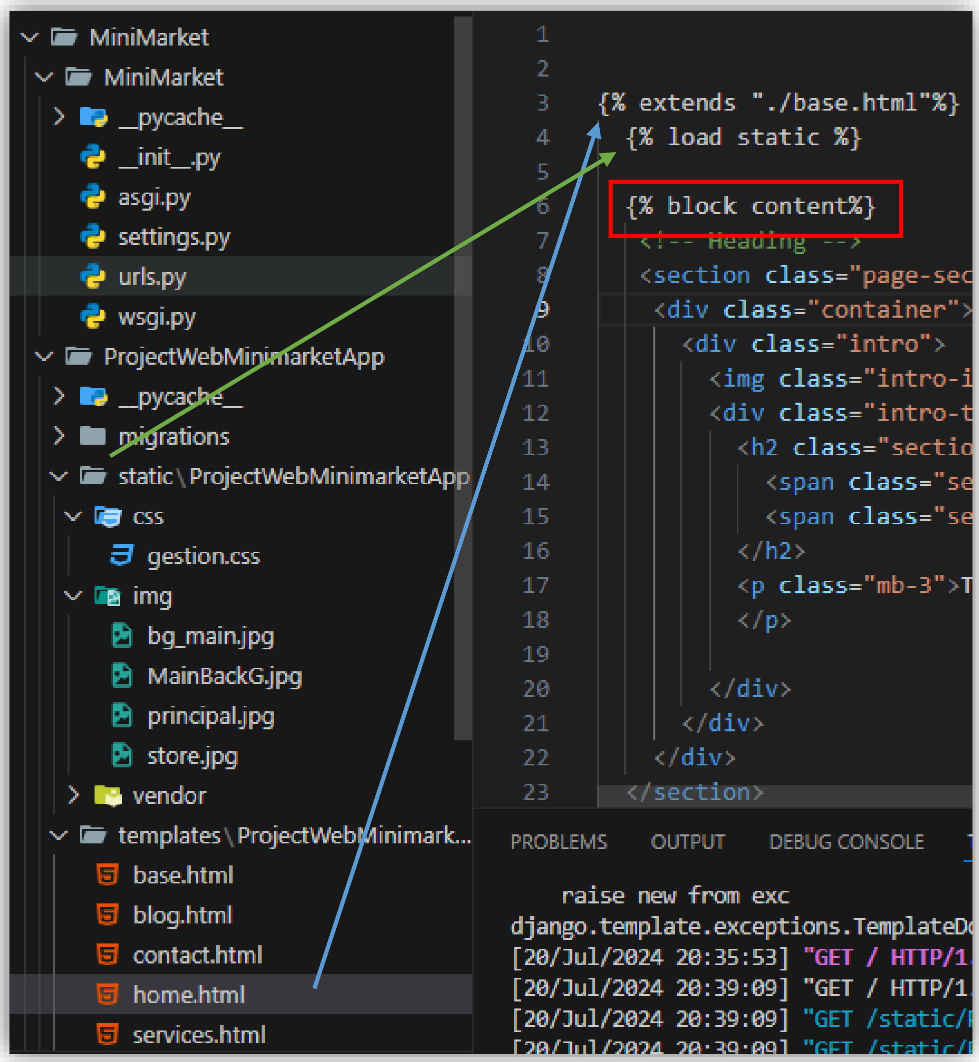
```
templates\ProjectWebMinimark...
    base.html
    blog.html
```

```
<!--Changing content-->
{% block content %}
{% endblock%}
```

First we use the inheritance saying that in the current directory search for base.html file

Then we load the static file to load the current directory that are being used in our project

Now we use the block content on what we can use to insert diverse content inside the block

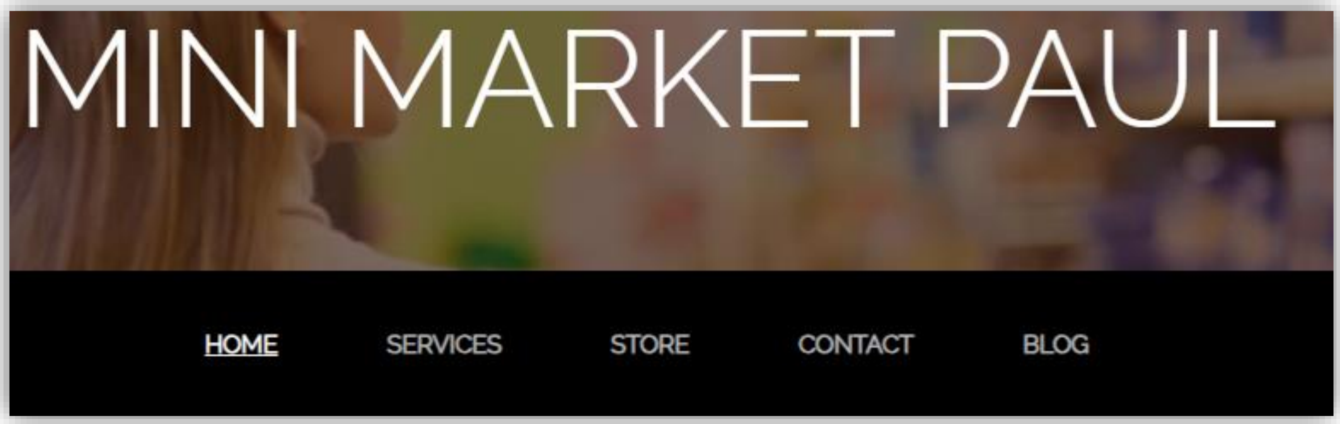


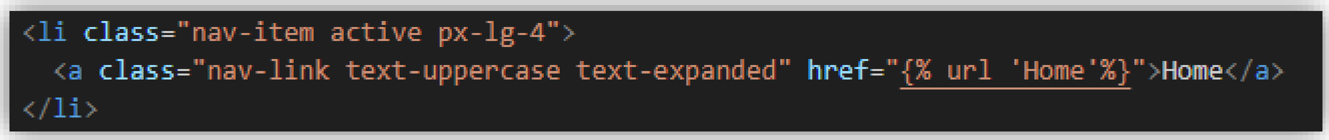
```
MiniMarket
  MiniMarket
    __pycache__
    __init__.py
    asgi.py
    settings.py
    urls.py
    wsgi.py
  ProjectWebMinimarketApp
    __pycache__
    migrations
    static\ProjectWebMinimarketApp
      css
        gestion.css
      img
        bg_main.jpg
        MainBackG.jpg
        principal.jpg
        store.jpg
      vendor
    templates\ProjectWebMinimark...
      base.html
      blog.html
      contact.html
      home.html
      services.html
```

```


{% extends "./base.html"%}
 {% load static %}

 {% block content%}
  <!-- Heading -->
  <section class="page-sec
   <div class="container">
     <div class="intro">
       <img class="intro-i
       <div class="intro-t
         <h2 class="sectio
           <span class="se
           <span class="se
         </h2>
         <p class="mb-3">T
         </p>

       </div>
     </div>
   </div>
 </section>
```

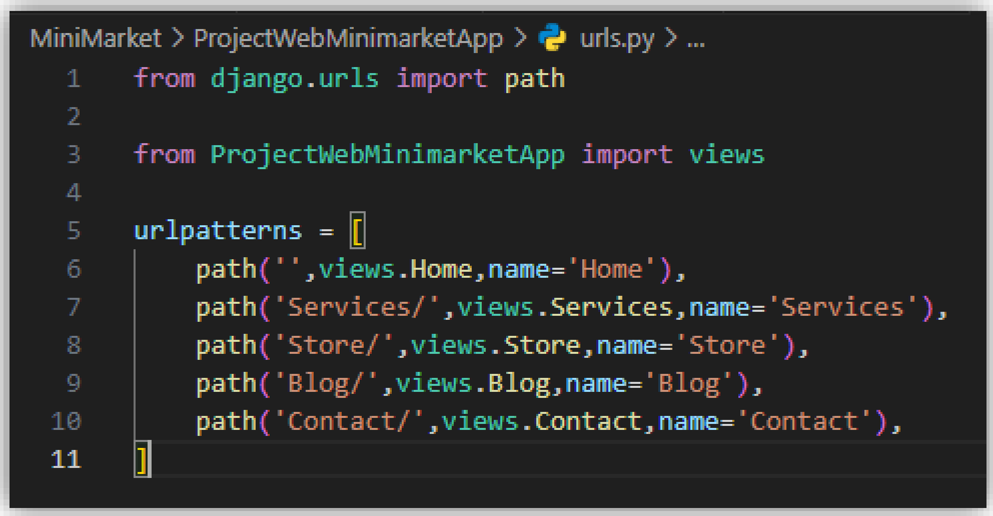
```
    raise new from exc
django.template.exceptions.TemplateD
[20/Jul/2024 20:35:53] "GET / HTTP/1.
[20/Jul/2024 20:39:09] "GET / HTTP/1.
[20/Jul/2024 20:39:09] "GET /static/P
[20/Jul/2024 20:39:09] "GET /static/P
```

8.- Enable the links of the navbar in the base.html, since each url was named, you can referred to the url with the name that corresponds in the urls.py of the application





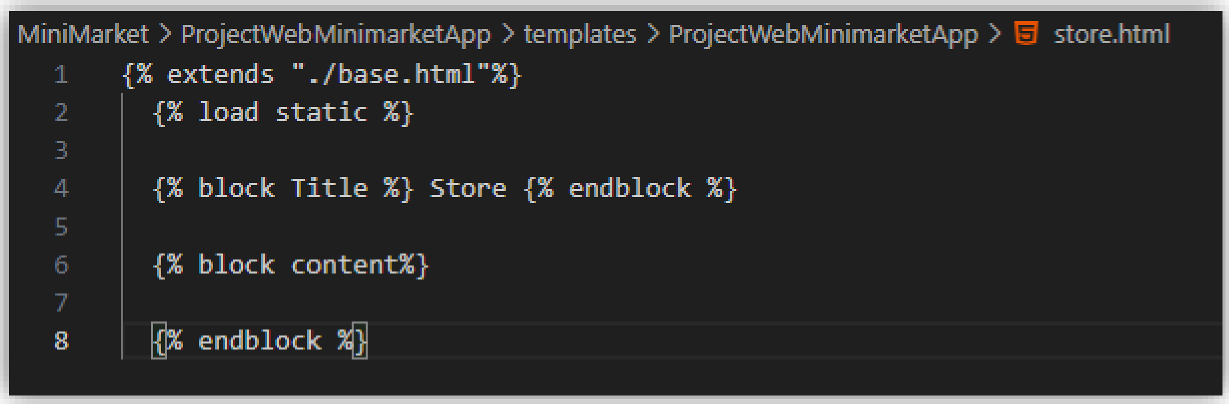
```
<li class="nav-item active px-lg-4">
  <a class="nav-link text-uppercase text-expanded" href="{% url 'Home'%}">Home</a>
</li>
```



MiniMarket > ProjectWebMinimarketApp > urls.py > ...

```
from django.urls import path

from ProjectWebMinimarketApp import views

urlpatterns = [
    path('',views.Home,name='Home'),
    path('Services/',views.Services,name='Services'),
    path('Store/',views.Store,name='Store'),
    path('Blog/',views.Blog,name='Blog'),
    path('Contact/',views.Contact,name='Contact'),
]
```

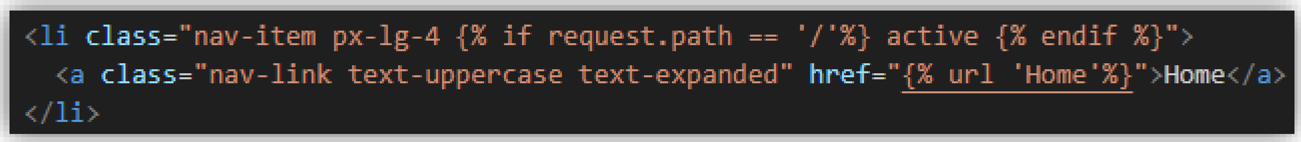
9.- Inheritance, each page in our project will inherit the nav and footer, so this is the general initial code of each page where in the block content, we can add the html code that corresponds.



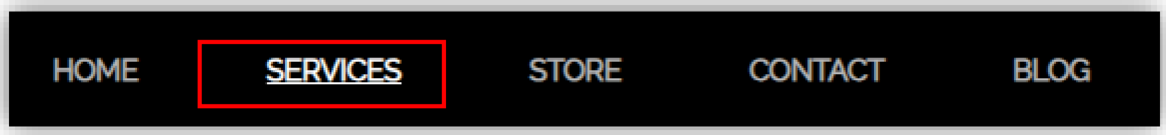
MiniMarket > ProjectWebMinimarketApp > templates > ProjectWebMinimarketApp > store.html

```
{% extends "./base.html"%}
  {% load static %}

  {% block Title %} Store {% endblock %}

  {% block content%}

  {% endblock %}
```

10.- Enable pointing to a url in the navbar if we are in that url

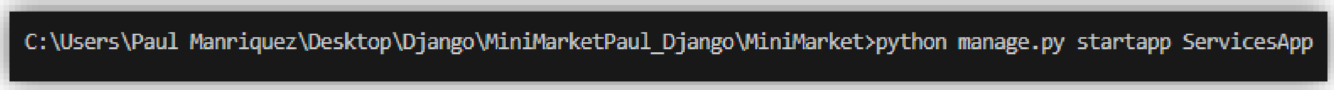


```
<li class="nav-item px-lg-4 {% if request.path == '/'%} active {% endif %}">
  <a class="nav-link text-uppercase text-expanded" href="{% url 'Home'%}">Home</a>
</li>
```

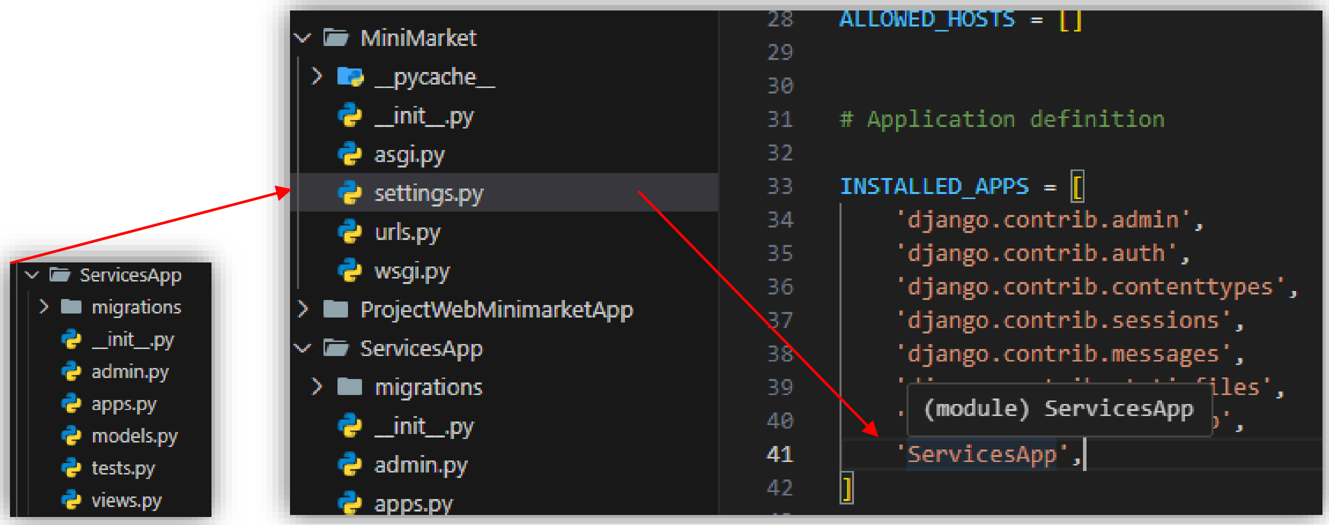


Creation of the app module ‘Services’

1.- To take use of the advantages of the modular creation of our app, we create the new module Services and registered in the main file, settings.py



```
C:\Users\Paul Manriquez\Desktop\Django\MiniMarketPaul_Django\MiniMarket>python manage.py startapp ServicesApp
```

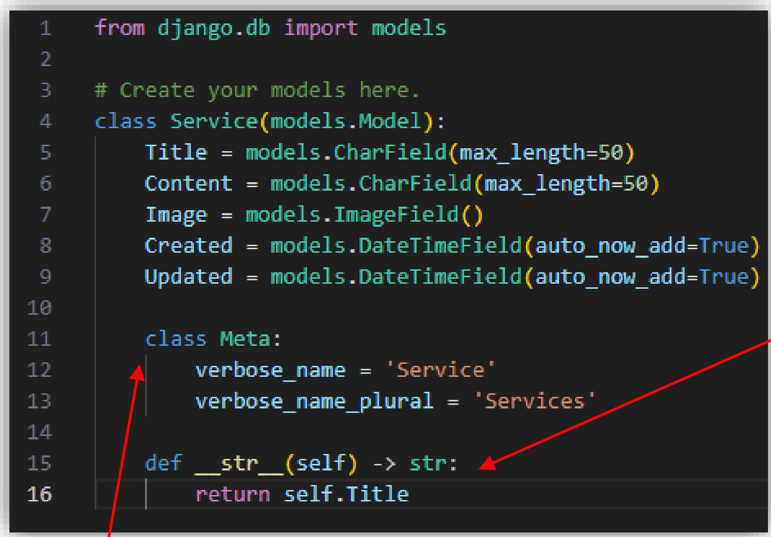


```
ALLOWED_HOSTS = []


# Application definition

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

2.- Mapping an ORM

Mapping an Object-Relational Mapping (ORM) in Django involves creating models that correspond to database tables. Django's ORM allows you to interact with your database using Python code instead of writing raw SQL queries.

In the models file of the ServicesApp , we create our model of the data base as follows:



```python
from django.db import models

# Create your models here.
class Service(models.Model):
    Title = models.CharField(max_length=50)
    Content = models.CharField(max_length=50)
    Image = models.ImageField()
    Created = models.DateTimeField(auto_now_add=True)
    Updated = models.DateTimeField(auto_now_add=True)

    class Meta:
        verbose_name = 'Service'
        verbose_name_plural = 'Services'

    def __str__(self) -> str:
        return self.Title
```

This method defines the string representation of the model. When you print an instance of `Service`, it will return the value of the `Title` field. This is useful for the Django admin interface and other places where the object needs to be represented as a string.

Meta Class in Django Models

The Meta class inside a Django model is used to define metadata options for the model. Metadata is "anything that's not a field," such as ordering options (how to order query results), database table name, or human-readable singular and plural names. Here are the specific attributes used in the provided example:

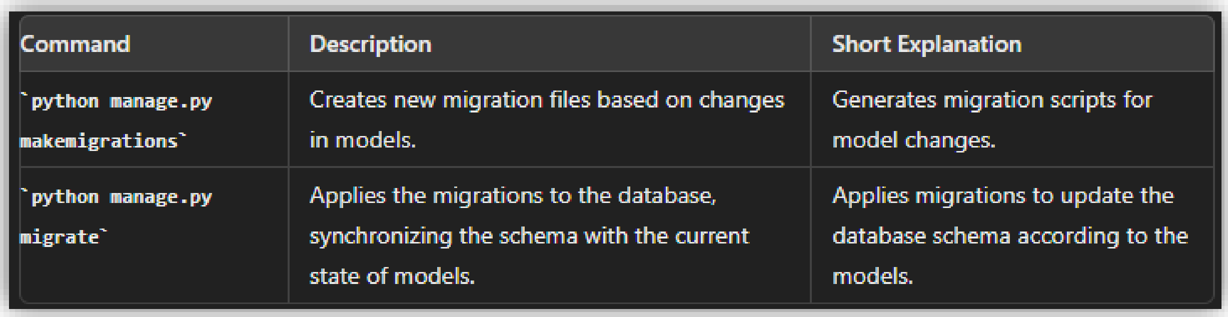
verbose_name

- **Definition**: verbose_name = 'Service'
- **Purpose**: This defines a human-readable name for the model. This name is used in the Django admin interface and other parts of Django where the model name might be displayed. By default, Django would use the class name (in this case, Service) but you can customize it using verbose_name.

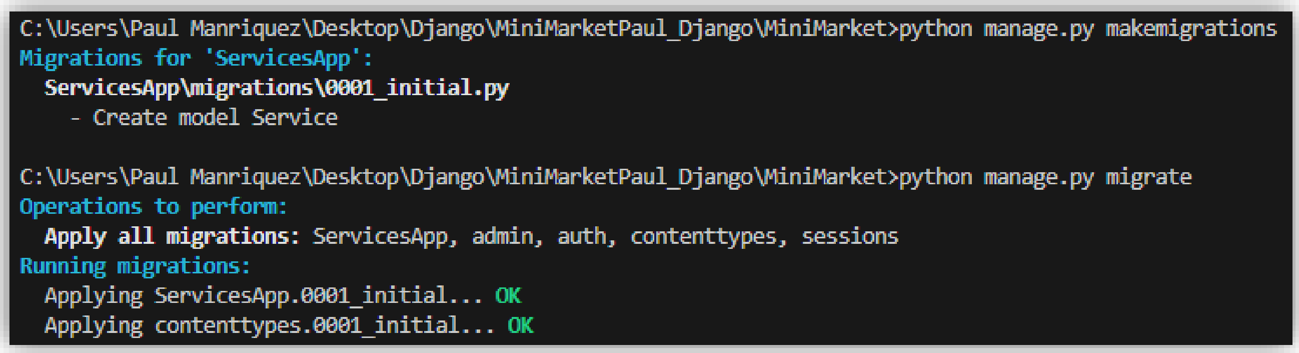
verbose_name_plural

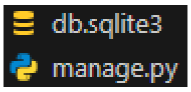
- **Definition**: verbose_name_plural = 'Services'
- **Purpose**: This defines a human-readable plural name for the model. Similar to verbose_name, but it is used when referring to multiple instances of the model. For example, in the Django admin interface, the section for this model would be labeled "Services" instead of the default, which would be "Services" (the same as the model name, but with an 's' appended).

Now, execute the Migrations of the new Data base

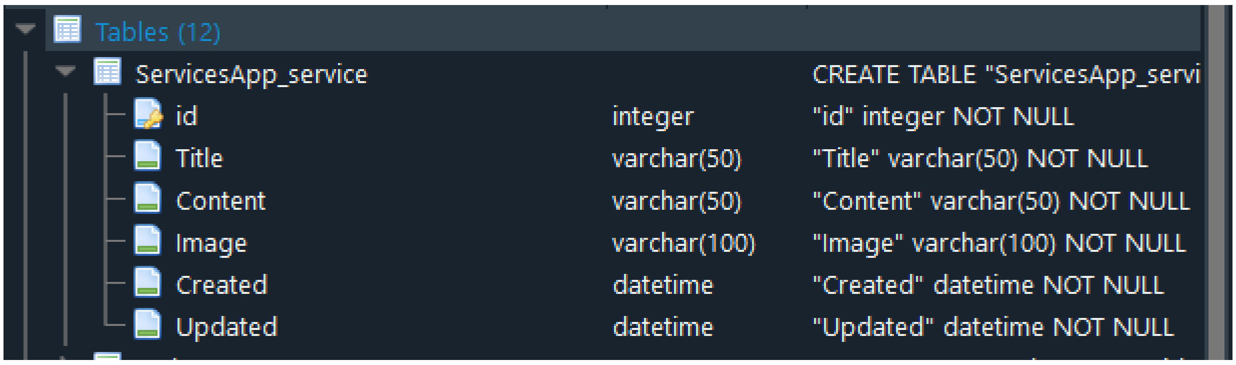


Command	Description	Short Explanation
`python manage.py makemigrations`	Creates new migration files based on changes in models.	Generates migration scripts for model changes.
`python manage.py migrate`	Applies the migrations to the database, synchronizing the schema with the current state of models.	Applies migrations to update the database schema according to the models.


```
C:\Users\Paul Manriquez\Desktop\Django\MiniMarketPaul_Django\MiniMarket>python manage.py makemigrations
Migrations for 'ServicesApp':
  ServicesApp\migrations\0001_initial.py
    - Create model Service

C:\Users\Paul Manriquez\Desktop\Django\MiniMarketPaul_Django\MiniMarket>python manage.py migrate
Operations to perform:
  Apply all migrations: ServicesApp, admin, auth, contenttypes, sessions
Running migrations:
  Applying ServicesApp.0001_initial... OK
  Applying contenttypes.0001_initial... OK
```

Now in the data base you can visualize the changes and the new data base added 

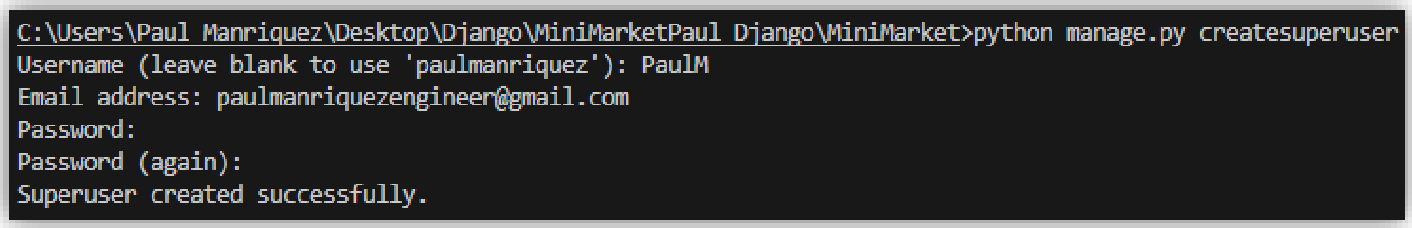
db.sqlite3
manage.py



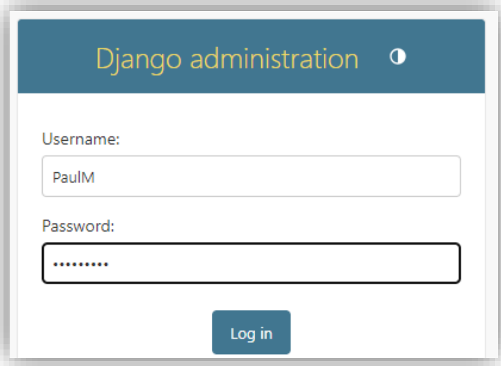
```
Tables (12)
  ServicesApp_service                              CREATE TABLE "ServicesApp_servi
    id              integer                        "id" integer NOT NULL
    Title           varchar(50)                    "Title" varchar(50) NOT NULL
    Content         varchar(50)                    "Content" varchar(50) NOT NULL
    Image           varchar(100)                   "Image" varchar(100) NOT NULL
    Created         datetime                       "Created" datetime NOT NULL
    Updated         datetime                       "Updated" datetime NOT NULL
```

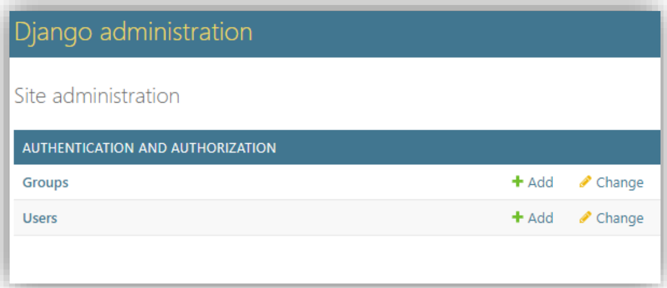
Register the new service in the Admin Panel

First, create a super user for this Project

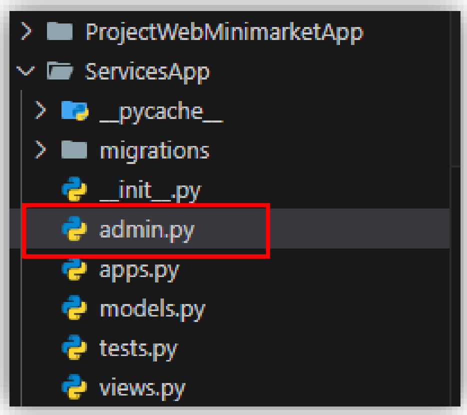

```
C:\Users\Paul Manriquez\Desktop\Django\MiniMarketPaul Django\MiniMarket>python manage.py createsuperuser
Username (leave blank to use 'paulmanriquez'): PaulM
Email address: paulmanriquezengineer@gmail.com
Password:
Password (again):
Superuser created successfully.
```

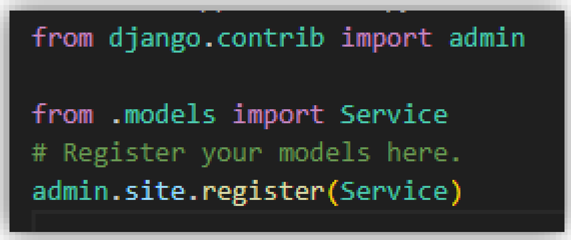
Run the server, go to admin url and access in the Administration panel



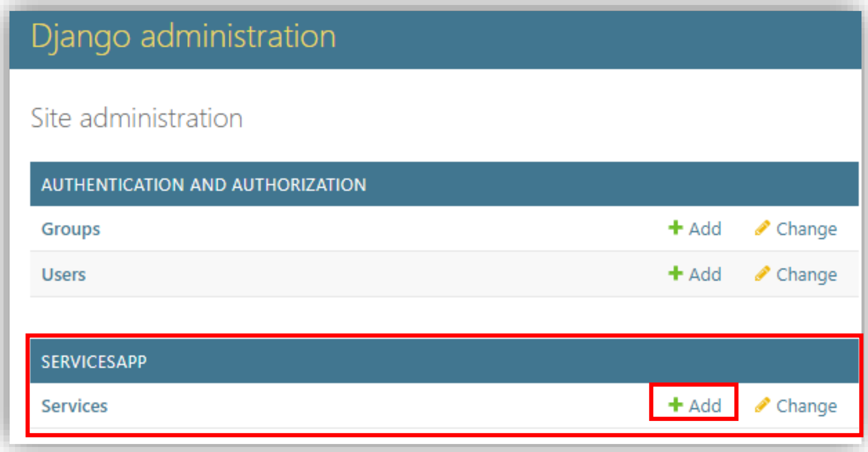


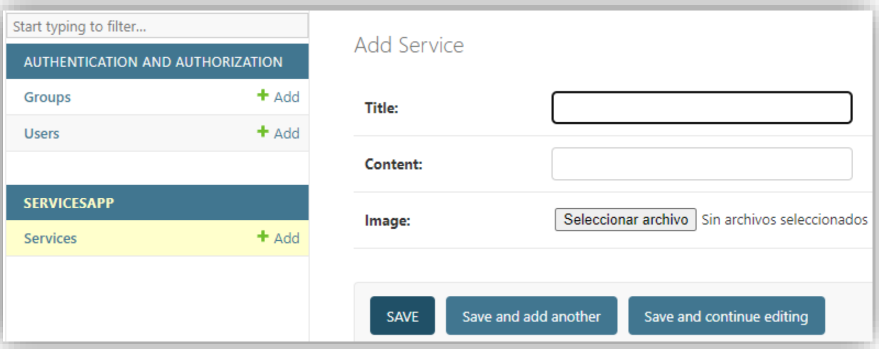
Now, in the admin file of the ServiceApp, we can add the new service as follows

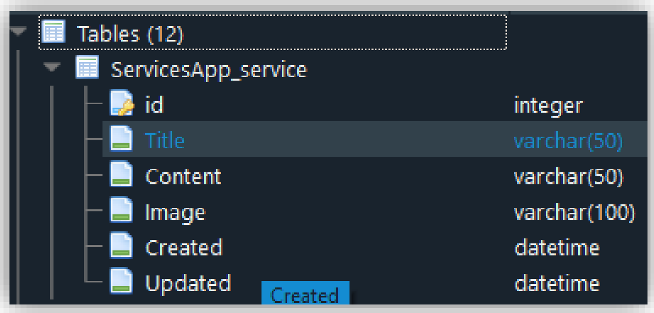




```
from django.contrib import admin

from .models import Service
# Register your models here.
admin.site.register(Service)
```

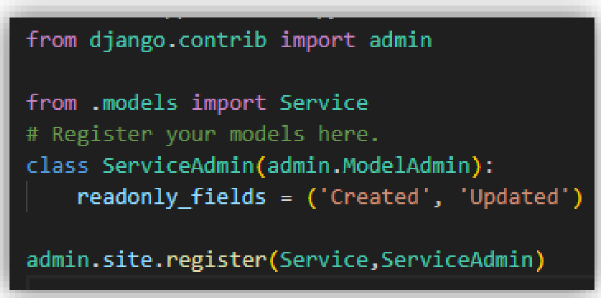


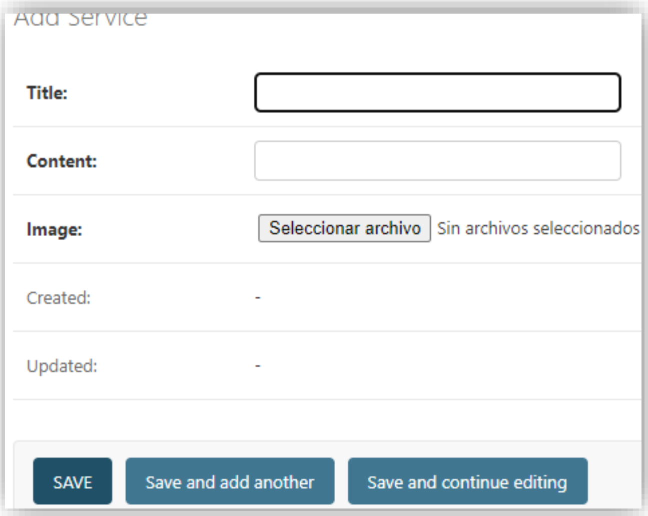




```
Tables (12)
  ServicesApp_service
    id          integer
    Title       varchar(50)
    Content     varchar(50)
    Image       varchar(100)
    Created     datetime
    Updated     datetime
```

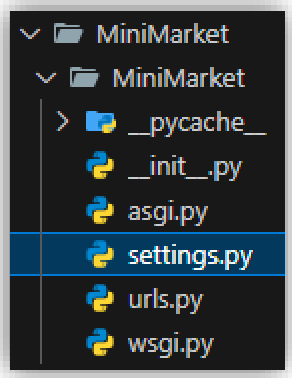
If you want to visualize Created and Updated field, Modify the admin.py file as follows:

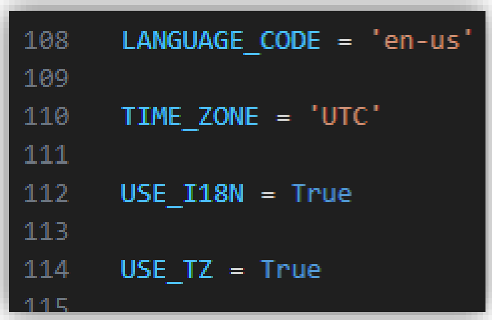

```python
from django.contrib import admin

from .models import Service
# Register your models here.
class ServiceAdmin(admin.ModelAdmin):
    readonly_fields = ('Created', 'Updated')

admin.site.register(Service,ServiceAdmin)
```


Add Service

Title:	
Content:	
Image:	Seleccionar archivo Sin archivos seleccionados
Created:	-
Updated:	-

If you desire to change the language, you can do it as follows in this section:




```python
LANGUAGE_CODE = 'en-us'

TIME_ZONE = 'UTC'

USE_I18N = True

USE_TZ = True
```

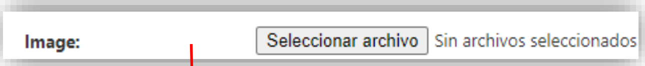
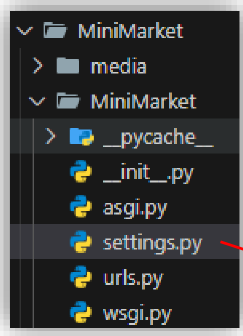
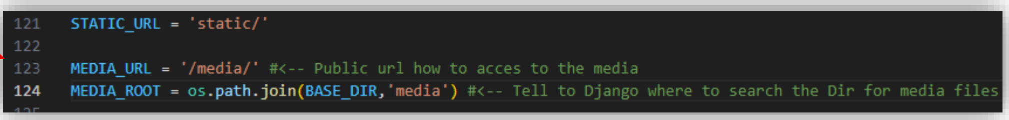


Image: Seleccionar archivo Sin archivos seleccionados

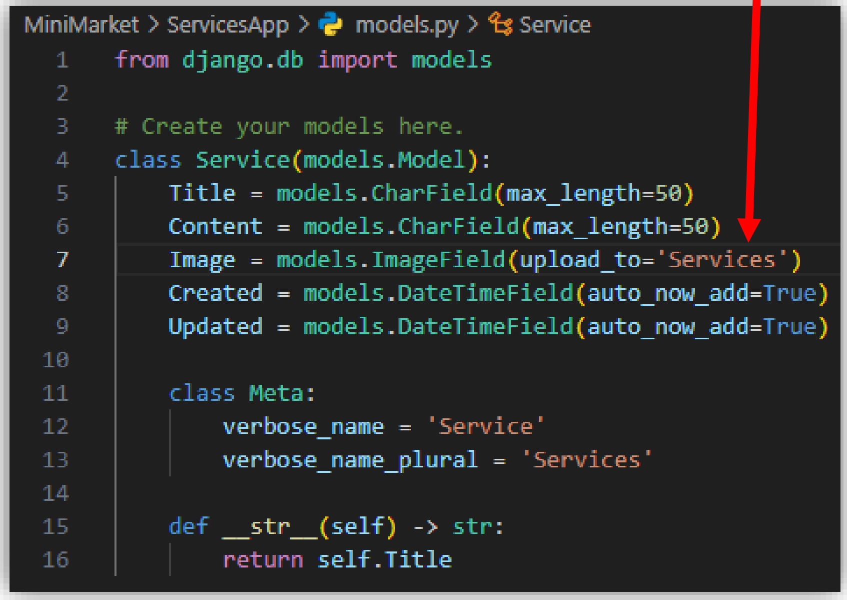
Since we don't configure where to store the files, they will be stored in the root of the project, thus, we need a special directory to store the media uploaded for each module, so, we need to configure as follows:

Create the Media file and in the settings.py add the next configuration for the Constants:



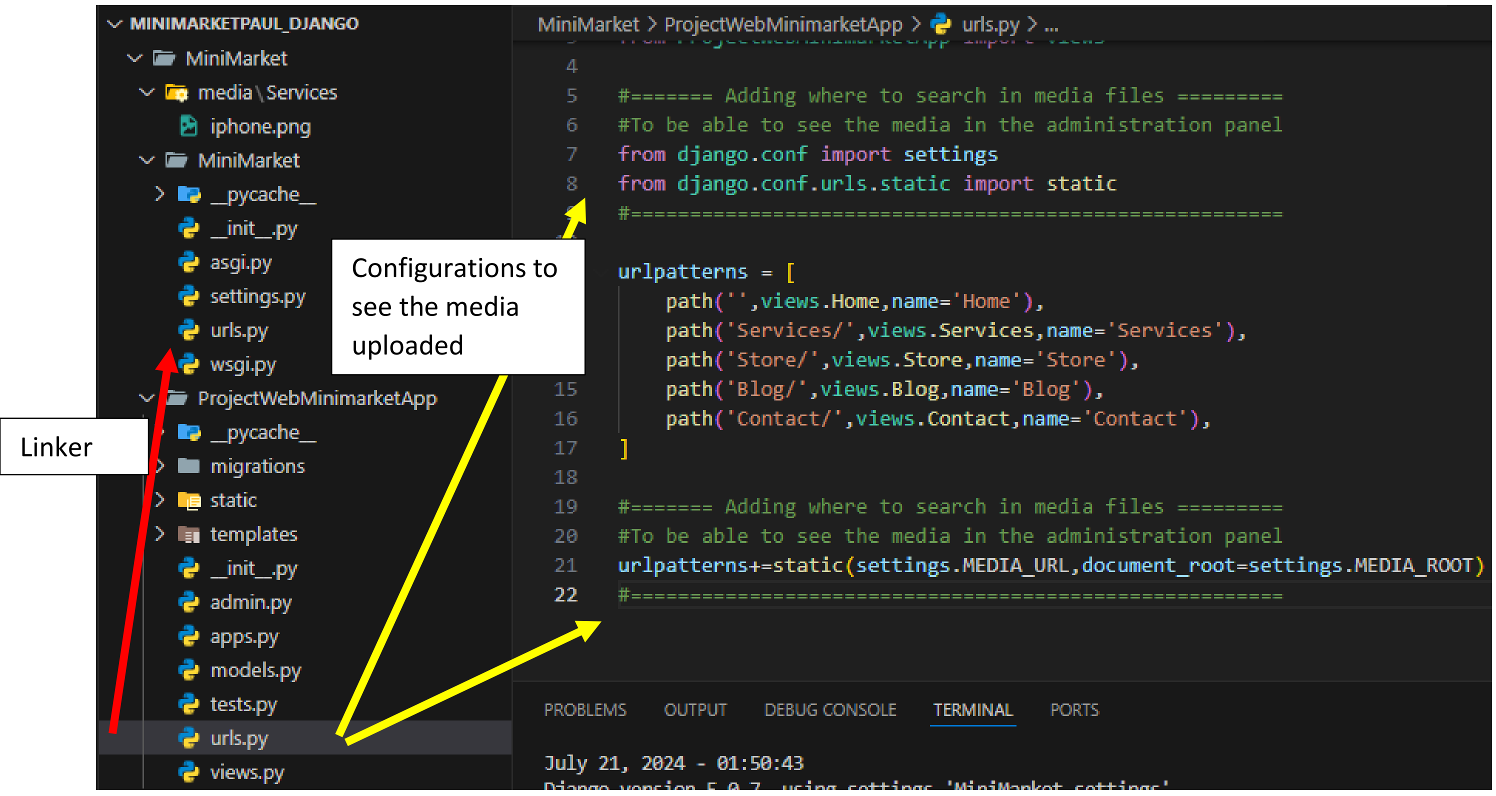

```python
STATIC_URL = 'static/'

MEDIA_URL = '/media/' #<-- Public url how to acces to the media
MEDIA_ROOT = os.path.join(BASE_DIR,'media') #<-- Tell to Django where to search the Dir for media files
```

In the model of the data base we now tell where to store the images, we are telling that the media will be stored in the dir Services, if it doesn't exist, it will be created , simply change this and save.



```python
from django.db import models

# Create your models here.
class Service(models.Model):
    Title = models.CharField(max_length=50)
    Content = models.CharField(max_length=50)
    Image = models.ImageField(upload_to='Services')
    Created = models.DateTimeField(auto_now_add=True)
    Updated = models.DateTimeField(auto_now_add=True)

    class Meta:
        verbose_name = 'Service'
        verbose_name_plural = 'Services'

    def __str__(self) -> str:
        return self.Title
```

To be able to see the media that we have upload it is necessary to do the next configuration in the url.py where we were linking to the main urls.py:



```python
#======= Adding where to search in media files =========
#To be able to see the media in the administration panel
from django.conf import settings
from django.conf.urls.static import static
#=======================================================

urlpatterns = [
    path('',views.Home,name='Home'),
    path('Services/',views.Services,name='Services'),
    path('Store/',views.Store,name='Store'),
    path('Blog/',views.Blog,name='Blog'),
    path('Contact/',views.Contact,name='Contact'),
]

#======= Adding where to search in media files =========
#To be able to see the media in the administration panel
urlpatterns+=static(settings.MEDIA_URL,document_root=settings.MEDIA_ROOT)
#=======================================================
```

```
July 21, 2024 - 01:50:43
```

In Django, configuring URLs to serve media files is crucial for correctly handling user-uploaded files during development. Here's an explanation of why it's necessary and what the code does:

Purpose of the Configuration

1. **Serve Media Files in Development**: By default, Django does not serve media files (such as user-uploaded images) in development mode. This configuration allows you to access media files via URLs during development.
2. **Admin Panel Display**: When using Django's admin panel, uploaded media files need to be accessible through URLs. Without this configuration, you might see broken links or missing images in the admin interface.

Code Explanation

Here's a breakdown of the key components in your urls.py configuration:

1. **Import Statements**

   python
   Copiar código
   ```
   from django.conf import settings
   from django.conf.urls.static import static
   ```

   - settings: Provides access to Django's settings, including MEDIA_URL and MEDIA_ROOT.
   - static: A utility function to serve static files during development.
2. **urlpatterns Definition**

   python
   Copiar código
   ```
   urlpatterns = [
       path('', views.Home, name='Home'),
       path('Services/', views.Services, name='Services'),
       path('Store/', views.Store, name='Store'),
       path('Blog/', views.Blog, name='Blog'),
       path('Contact/', views.Contact, name='Contact'),
   ]
   ```

   - Defines URL patterns for various views in your application.
3. **Media Files Handling**

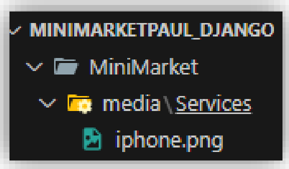
   python
   Copiar código
   ```
   urlpatterns += static(settings.MEDIA_URL, document_root=settings.MEDIA_ROOT)
   ```

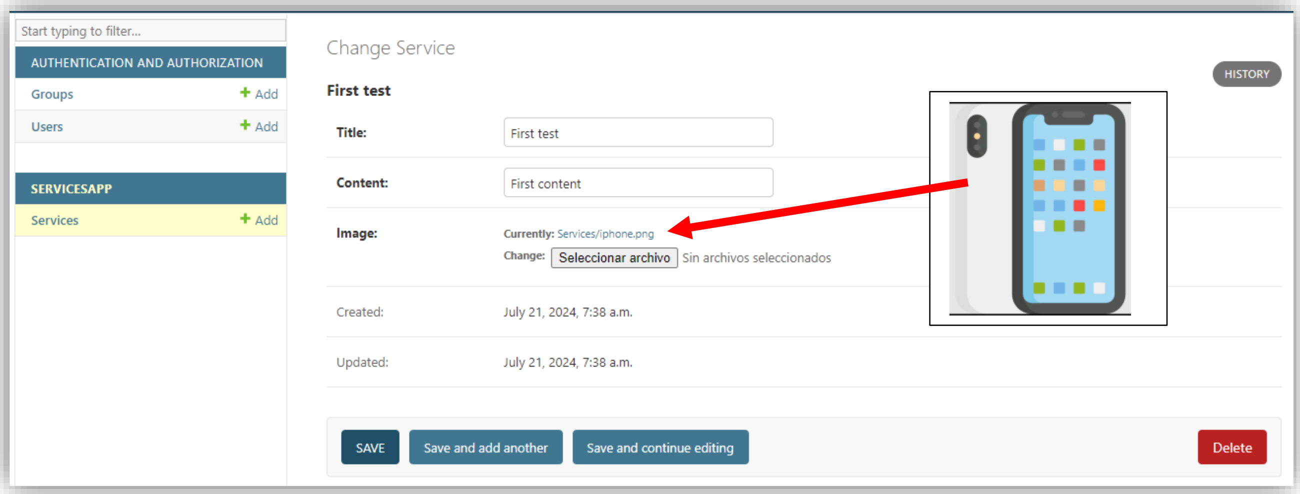
   - settings.MEDIA_URL: The URL prefix for serving media files (e.g., /media/).
   - settings.MEDIA_ROOT: The filesystem path where media files are stored (e.g., /path/to/media/).
   - static(settings.MEDIA_URL, document_root=settings.MEDIA_ROOT): This function appends a URL pattern to urlpatterns that tells Django to serve files from MEDIA_ROOT at the URL prefix specified by MEDIA_URL.

Summary

This configuration is necessary for development purposes to ensure that media files uploaded by users can be served and viewed properly. In production environments, serving media files is typically handled by a dedicated web server like Nginx or through cloud storage services, rather than Django itself.

Now in the Panel administration, we add a new row in the Service data base and we can see that was created and uploaded correctly:

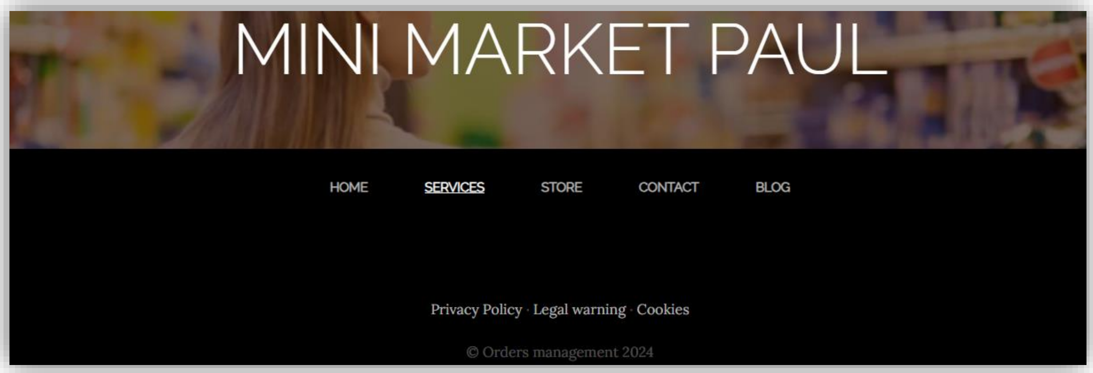




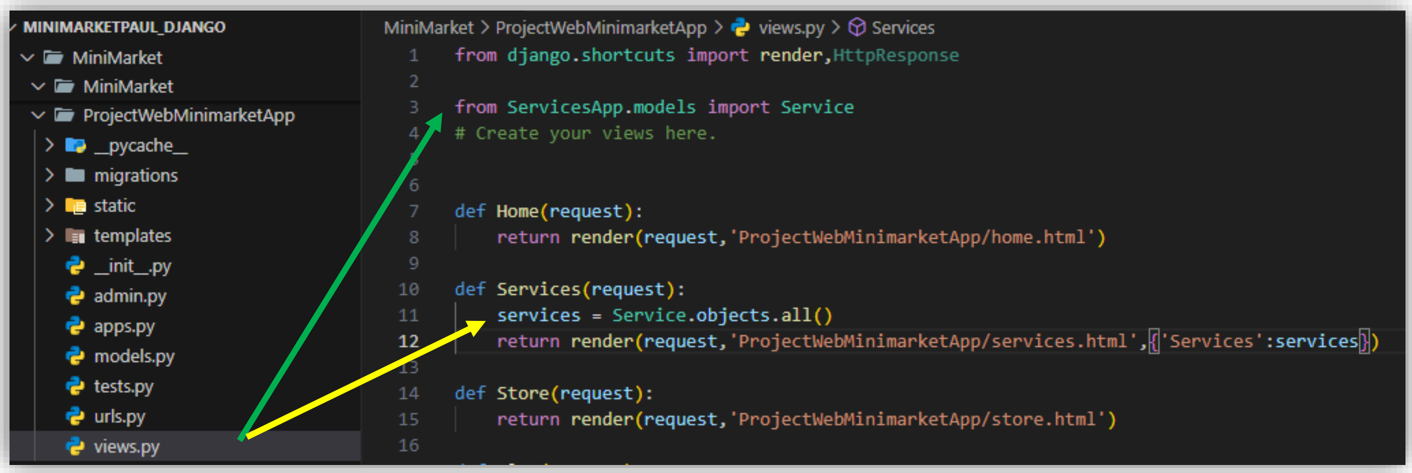
First test

Title:	First test
Content:	First content
Image:	Currently: Services/iphone.png Change: Seleccionar archivo Sin archivos seleccionados
Created:	July 21, 2024, 7:38 a.m.
Updated:	July 21, 2024, 7:38 a.m.

Now The goal is to see displayed the services that we have created in the services page:

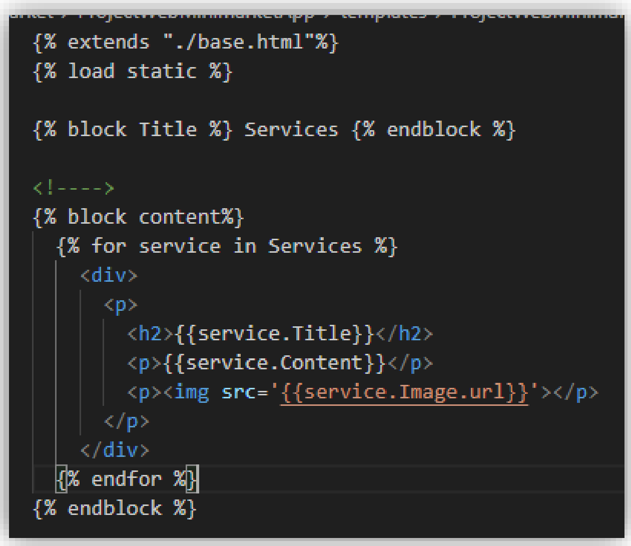


1.- Pass the models objects services to the template of the services

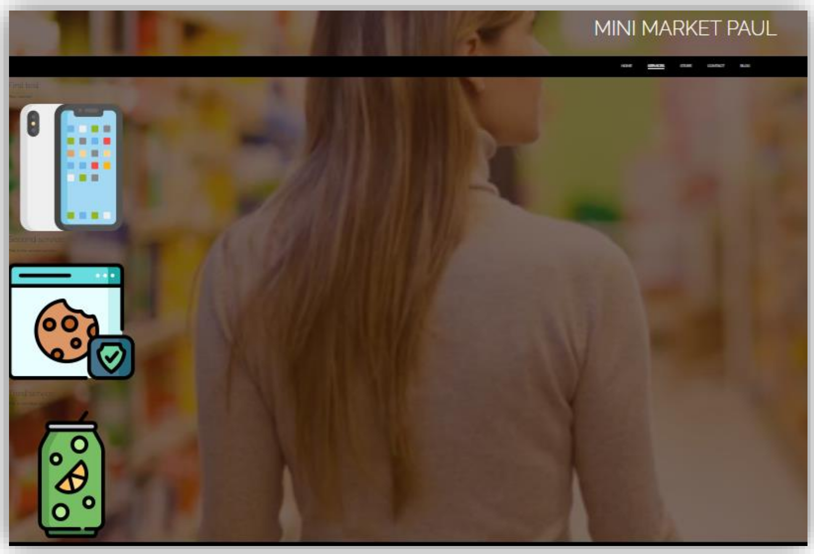


```python
from django.shortcuts import render,HttpResponse

from ServicesApp.models import Service
# Create your views here.


def Home(request):
    return render(request,'ProjectWebMinimarketApp/home.html')

def Services(request):
    services = Service.objects.all()
    return render(request,'ProjectWebMinimarketApp/services.html',{'Services':services})

def Store(request):
    return render(request,'ProjectWebMinimarketApp/store.html')
```

In the html file, since we will have several data in the services, we add a for each to pass through each data for the service as follows:


```
{% extends "./base.html"%}
{% load static %}

{% block Title %} Services {% endblock %}

<!---->
{% block content%}
  {% for service in Services %}
    <div>
      <p>
        <h2>{{service.Title}}</h2>
        <p>{{service.Content}}</p>
        <p><img src='{{service.Image.url}}'></p>
      </p>
    </div>
  {% endfor %}
{% endblock %}
```

Now we can see that for each service added will be displayed, for the moment I don't added a Style css but this will be added.



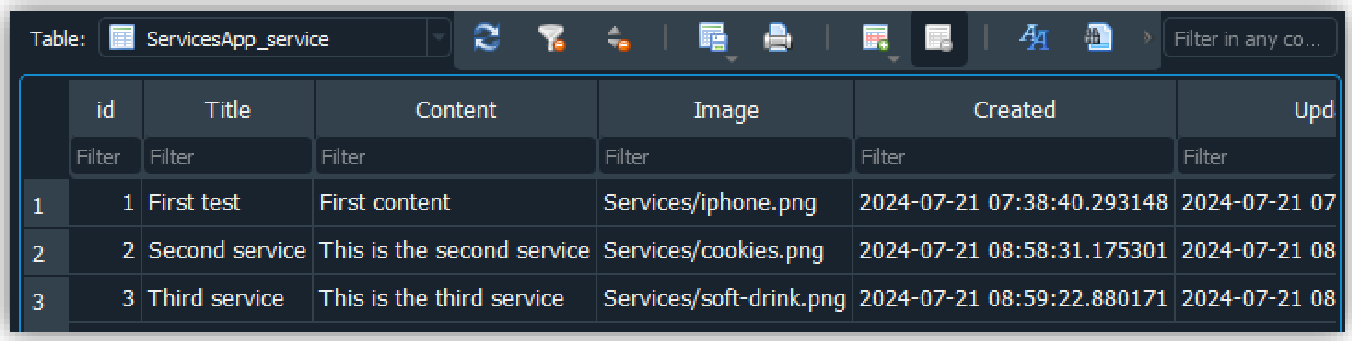
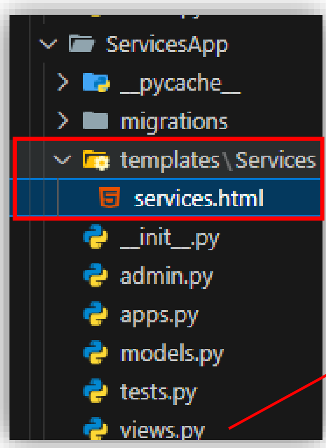


Table: ServicesApp_service

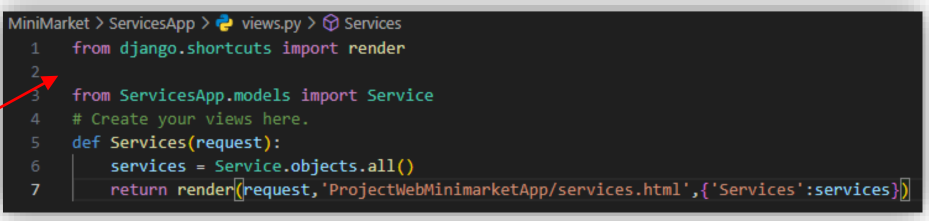
	id	Title	Content	Image	Created	Upd
1	1	First test	First content	Services/iphone.png	2024-07-21 07:38:40.293148	2024-07-21 07
2	2	Second service	This is the second service	Services/cookies.png	2024-07-21 08:58:31.175301	2024-07-21 08
3	3	Third service	This is the third service	Services/soft-drink.png	2024-07-21 08:59:22.880171	2024-07-21 08

Now that we have created the service, is much better to save the view of this app module in the module itself where belongs, to achieve this is as follows:

Create the dirs. In the corresponding app in this case (service) and move the view of the service to the view py of the module where corresponds as follows:



```
ServicesApp
  __pycache__
  migrations
  templates\Services
    services.html
  __init__.py
  admin.py
  apps.py
  models.py
  tests.py
  views.py
```

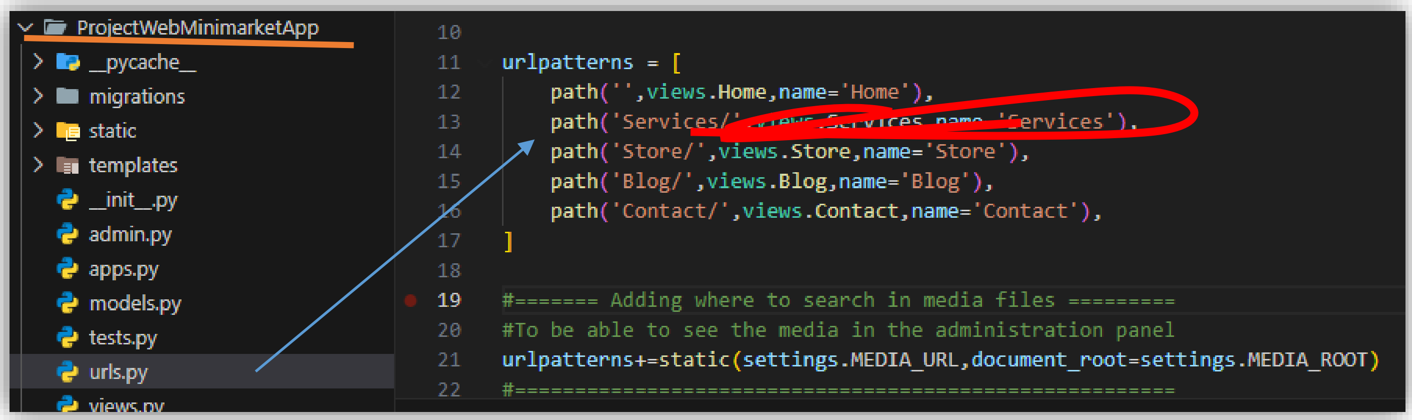


MiniMarket > ServicesApp > views.py > Services

```python
from django.shortcuts import render

from ServicesApp.models import Service
# Create your views here.
def Services(request):
    services = Service.objects.all()
    return render(request,'ProjectWebMinimarketApp/services.html',{'Services':services})
```

Since this view no longer exist in the original urls where we set all the urls, we need to delete the url and move itt to it own urls file of the application , so 1) delete the older url direction of the main application and 2) Move the url to the file where corresponds in the specific app

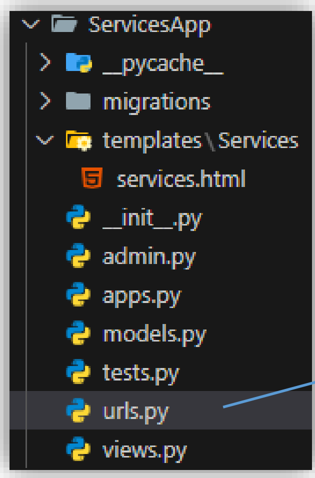
1) delete and move



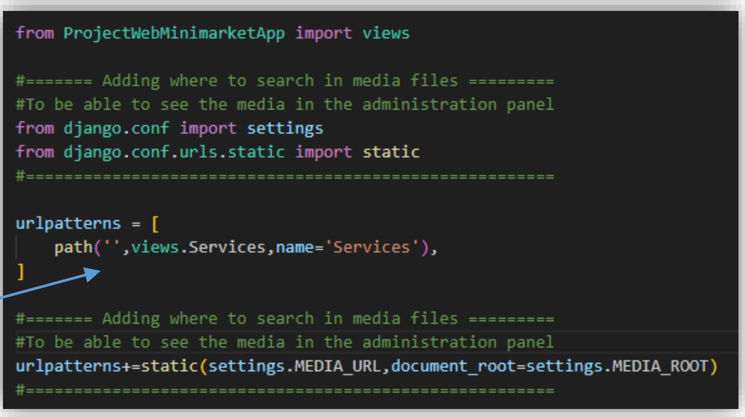
```
ProjectWebMinimarketApp
  __pycache__
  migrations
  static
  templates
  __init__.py
  admin.py
  apps.py
  models.py
  tests.py
  urls.py
  views.py
```

```python

urlpatterns = [
    path('',views.Home,name='Home'),
    ~~path('Services/',views.Services,name='Services'),~~
    path('Store/',views.Store,name='Store'),
    path('Blog/',views.Blog,name='Blog'),
    path('Contact/',views.Contact,name='Contact'),
]

#======= Adding where to search in media files =========
#To be able to see the media in the administration panel
urlpatterns+=static(settings.MEDIA_URL,document_root=settings.MEDIA_ROOT)
#=======================================================
```

2) Create the urls.py file of the module app and, since we are in the root of the app, we can set it as it is (a root)

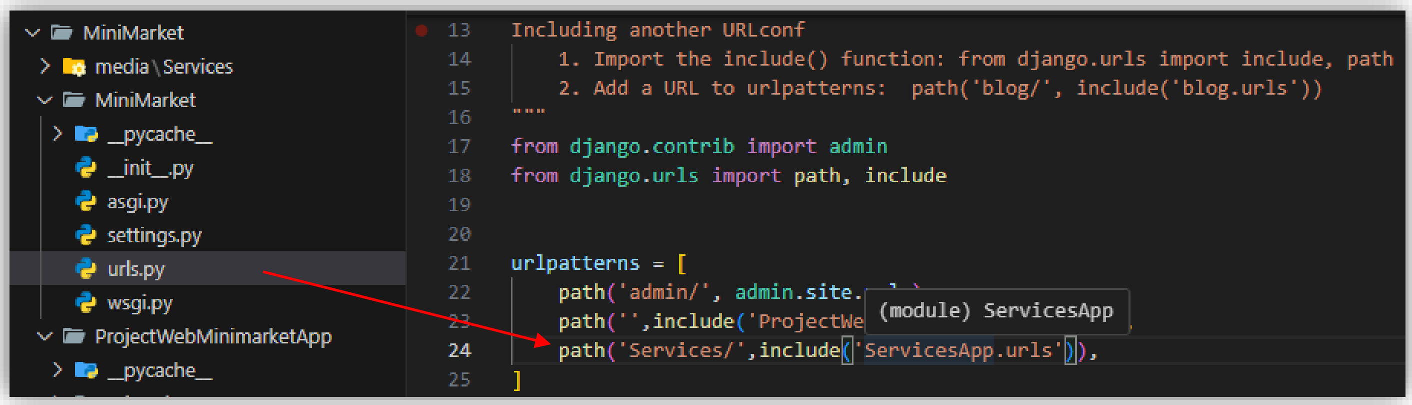


```
ServicesApp
  __pycache__
  migrations
  templates\Services
    services.html
  __init__.py
  admin.py
  apps.py
  models.py
  tests.py
  urls.py
  views.py
```



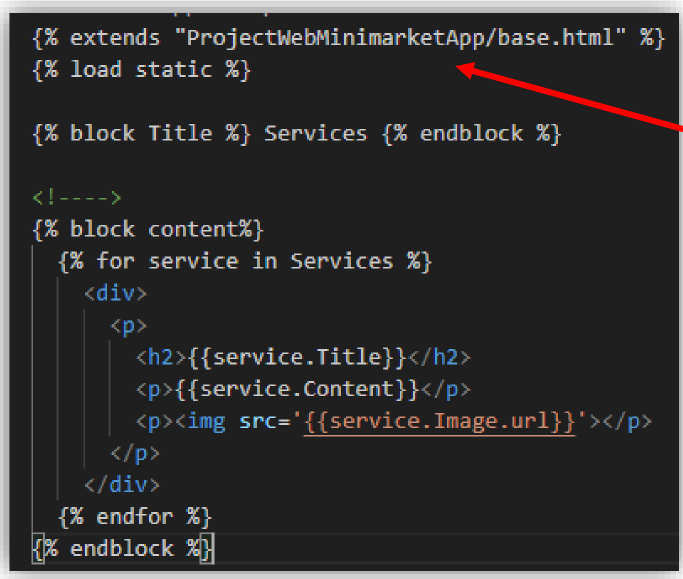
```python
from ProjectWebMinimarketApp import views

#======= Adding where to search in media files =========
#To be able to see the media in the administration panel
from django.conf import settings
from django.conf.urls.static import static
#=======================================================

urlpatterns = [
    path('',views.Services,name='Services'),
]

#======= Adding where to search in media files =========
#To be able to see the media in the administration panel
urlpatterns+=static(settings.MEDIA_URL,document_root=settings.MEDIA_ROOT)
#=======================================================
```

Include in the main app in the urls file the service where comes the urls of the module services



```
Including another URLconf
    1. Import the include() function: from django.urls import include, path
    2. Add a URL to urlpatterns:  path('blog/', include('blog.urls'))
"""
from django.contrib import admin
from django.urls import path, include


urlpatterns = [
    path('admin/', admin.site.
    path('',include('ProjectWe
    path('Services/',include('ServicesApp.urls')),
]
```

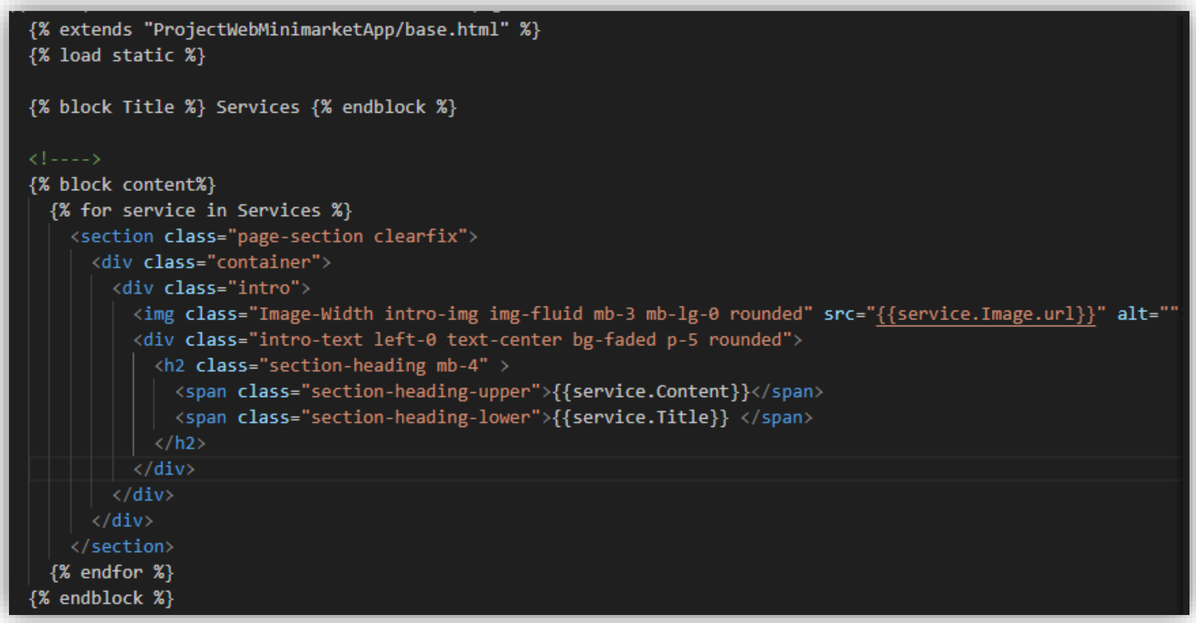
Quote: Since Django search for the templates of each app, it can be referenced as follows



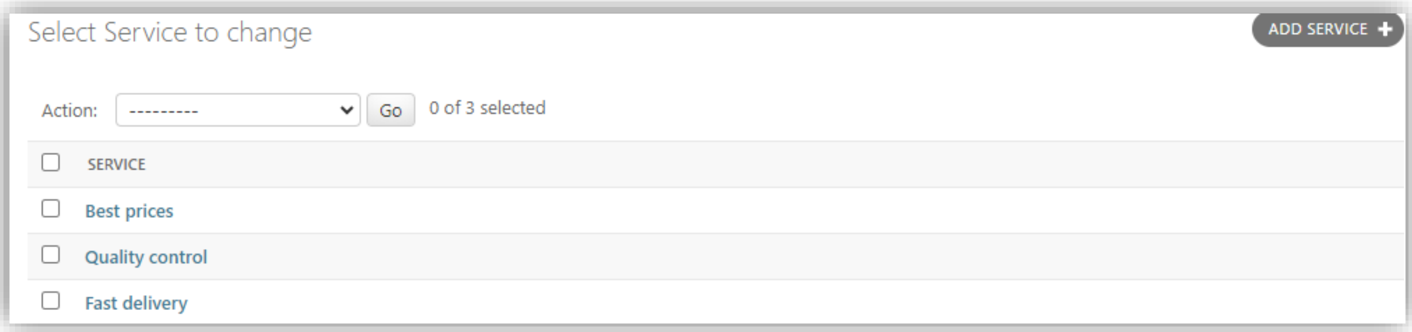
```
{% extends "ProjectWebMinimarketApp/base.html" %}
{% load static %}

{% block Title %} Services {% endblock %}

<!---->
{% block content%}
  {% for service in Services %}
    <div>
      <p>
        <h2>{{service.Title}}</h2>
        <p>{{service.Content}}</p>
        <p><img src='{{service.Image.url}}'></p>
      </p>
    </div>
  {% endfor %}
{% endblock %}
```

Search for the file in the app where it is, no matters if the file is inside another directories

In this part we re-use code of the home.html to display our services, fron the admin now you can add a new service each time you want



```
{% extends "ProjectWebMinimarketApp/base.html" %}
{% load static %}

{% block Title %} Services {% endblock %}

<!---->
{% block content%}
  {% for service in Services %}
    <section class="page-section clearfix">
      <div class="container">
        <div class="intro">
          <img class="Image-Width intro-img img-fluid mb-3 mb-lg-0 rounded" src="{{service.Image.url}}" alt=""
          <div class="intro-text left-0 text-center bg-faded p-5 rounded">
            <h2 class="section-heading mb-4" >
              <span class="section-heading-upper">{{service.Content}}</span>
              <span class="section-heading-lower">{{service.Title}} </span>
            </h2>
          </div>
        </div>
      </div>
    </section>
  {% endfor %}
{% endblock %}
```

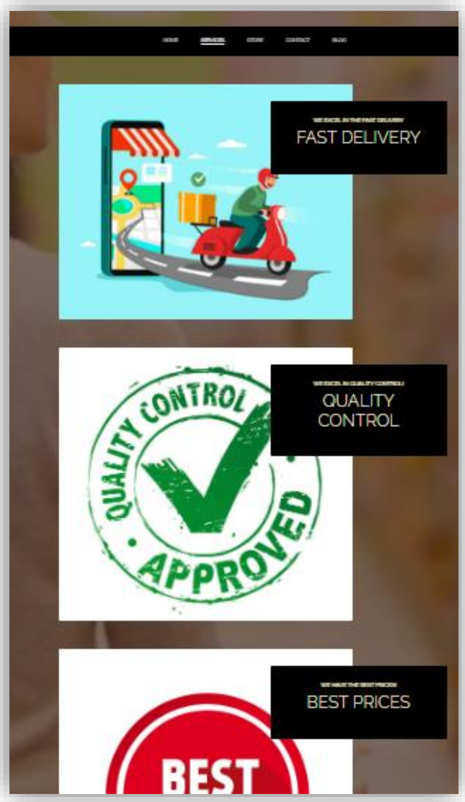


Select Service to change

ADD SERVICE

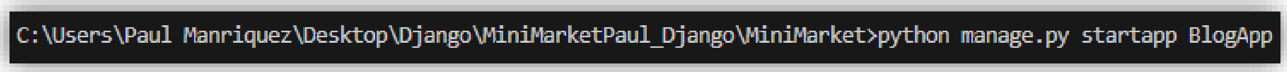
Action: --------- Go 0 of 3 selected

SERVICE
Best prices
Quality control
Fast delivery



Creation of a blog section

In this part we will focus on the creation of the blog section, we create the app and the model tables of the app



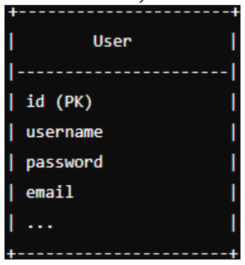
```
C:\Users\Paul Manriquez\Desktop\Django\MiniMarketPaul_Django\MiniMarket>python manage.py startapp BlogApp
```

```
from django.contrib.auth.models import User
This line imports the User model from Django's built-in authentication system. The User
model is used to handle user accounts and provides fields such as username, password,
email, first name, last name, etc
```

```
Author = models.ForeignKey(User, on_delete=models.CASCADE)
```

- `Author = models.ForeignKey(User, on_delete=models.CASCADE)` defines a foreign key relationship between the `Post` model and the `User` model.
- `models.ForeignKey` is used to create a many-to-one relationship. This means that many posts can be associated with one user (the author).
- `User` is the model that this foreign key points to, which means each post will be associated with one specific user.
- `on_delete=models.CASCADE` specifies that if the referenced `User` is deleted, all related `Post` instances will also be deleted. This ensures referential integrity by not leaving orphaned posts with no associated author.

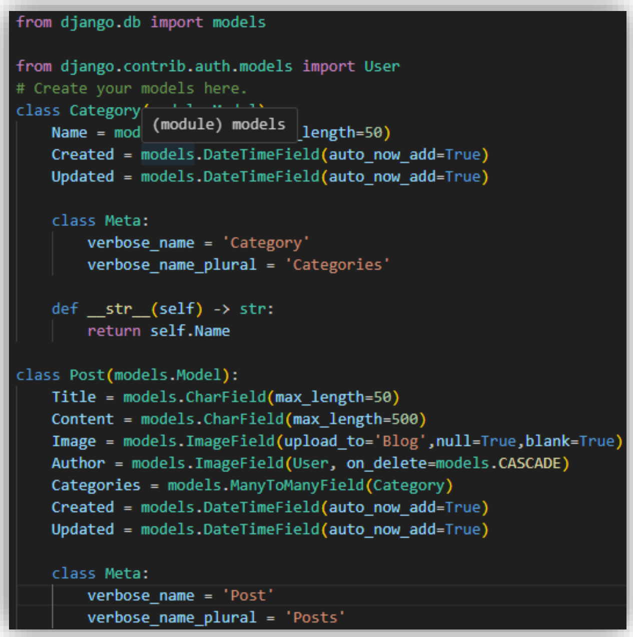
User is a model, so is a table



```
+---------------------+
|        User         |
|---------------------|
| id (PK)             |
| username            |
| password            |
| email               |
| ...                 |
+---------------------+
```

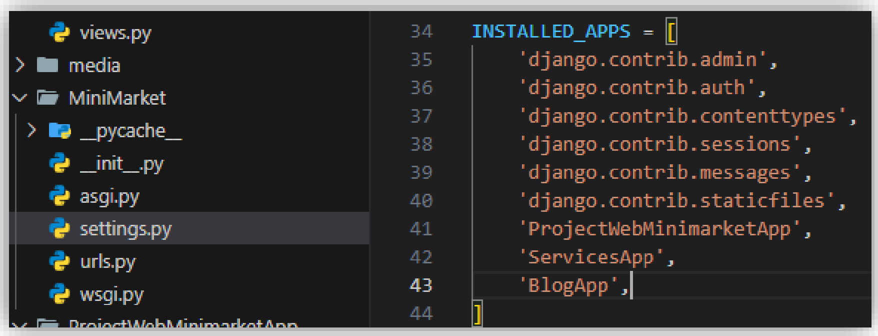
```
Categories = models.ManyToManyField(Category)
```

- `Categories = models.ManyToManyField(Category)` defines a many-to-many relationship between the `Post` model and the `Category` model.
- `models.ManyToManyField` is used to create a relationship where multiple categories can be associated with multiple posts. This allows a post to belong to multiple categories and a category to include multiple posts.
- `Category` is the model that this field is relating to, indicating that each post can have multiple categories and each category can have multiple posts.



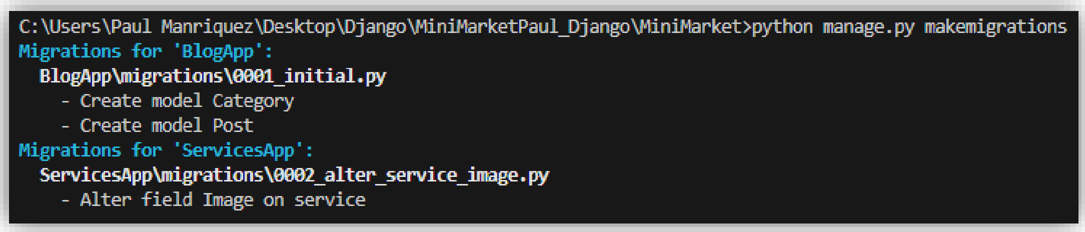
```
from django.db import models

from django.contrib.auth.models import User
# Create your models here.
class Category(models.Model):
    Name = mod[illegible]_length=50)
    Created = models.DateTimeField(auto_now_add=True)
    Updated = models.DateTimeField(auto_now_add=True)

    class Meta:
        verbose_name = 'Category'
        verbose_name_plural = 'Categories'

    def __str__(self) -> str:
        return self.Name

class Post(models.Model):
    Title = models.CharField(max_length=50)
    Content = models.CharField(max_length=500)
    Image = models.ImageField(upload_to='Blog',null=True,blank=True)
    Author = models.ImageField(User, on_delete=models.CASCADE)
    Categories = models.ManyToManyField(Category)
    Created = models.DateTimeField(auto_now_add=True)
    Updated = models.DateTimeField(auto_now_add=True)

    class Meta:
        verbose_name = 'Post'
        verbose_name_plural = 'Posts'
```

Install the app in the settings.py of the main project

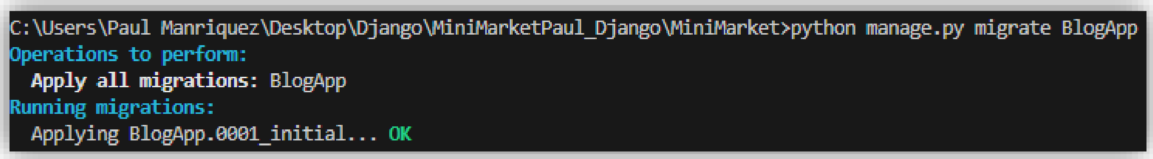


```python
INSTALLED_APPS = [
    'django.contrib.admin',
    'django.contrib.auth',
    'django.contrib.contenttypes',
    'django.contrib.sessions',
    'django.contrib.messages',
    'django.contrib.staticfiles',
    'ProjectWebMinimarketApp',
    'ServicesApp',
    'BlogApp',
]
```

Execute migrations

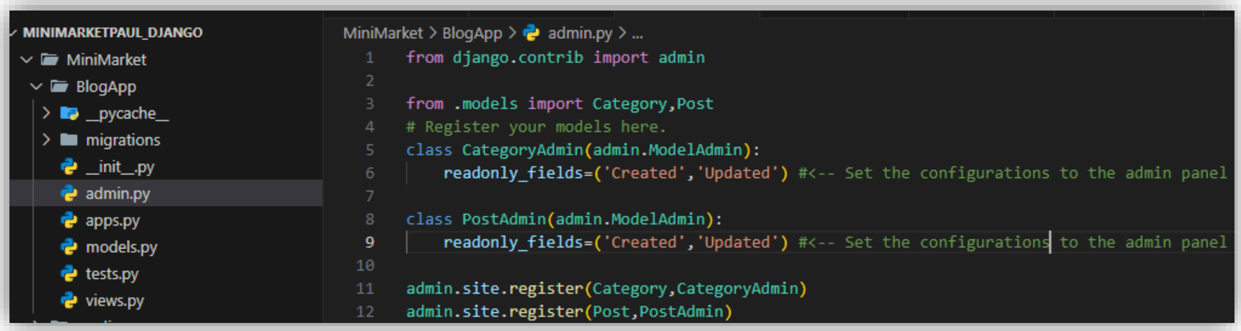


```
C:\Users\Paul Manriquez\Desktop\Django\MiniMarketPaul_Django\MiniMarket>python manage.py makemigrations
Migrations for 'BlogApp':
  BlogApp\migrations\0001_initial.py
    - Create model Category
    - Create model Post
Migrations for 'ServicesApp':
  ServicesApp\migrations\0002_alter_service_image.py
    - Alter field Image on service
```



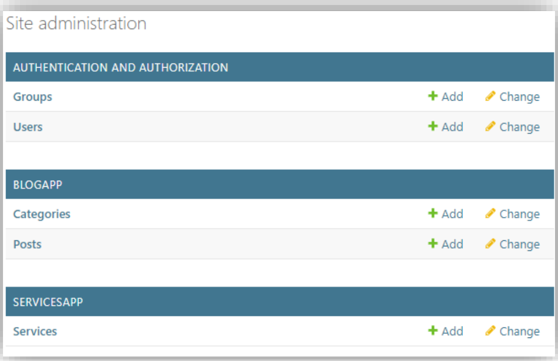
```
C:\Users\Paul Manriquez\Desktop\Django\MiniMarketPaul_Django\MiniMarket>python manage.py migrate BlogApp
Operations to perform:
  Apply all migrations: BlogApp
Running migrations:
  Applying BlogApp.0001_initial... OK
```

Add to administration panel

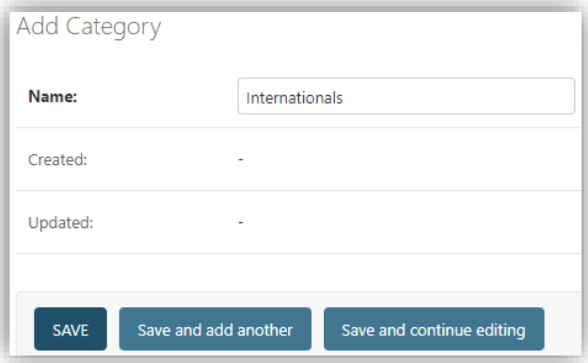


```python
from django.contrib import admin

from .models import Category,Post
# Register your models here.
class CategoryAdmin(admin.ModelAdmin):
    readonly_fields=('Created','Updated') #<-- Set the configurations to the admin panel

class PostAdmin(admin.ModelAdmin):
    readonly_fields=('Created','Updated') #<-- Set the configurations to the admin panel

admin.site.register(Category,CategoryAdmin)
admin.site.register(Post,PostAdmin)
```

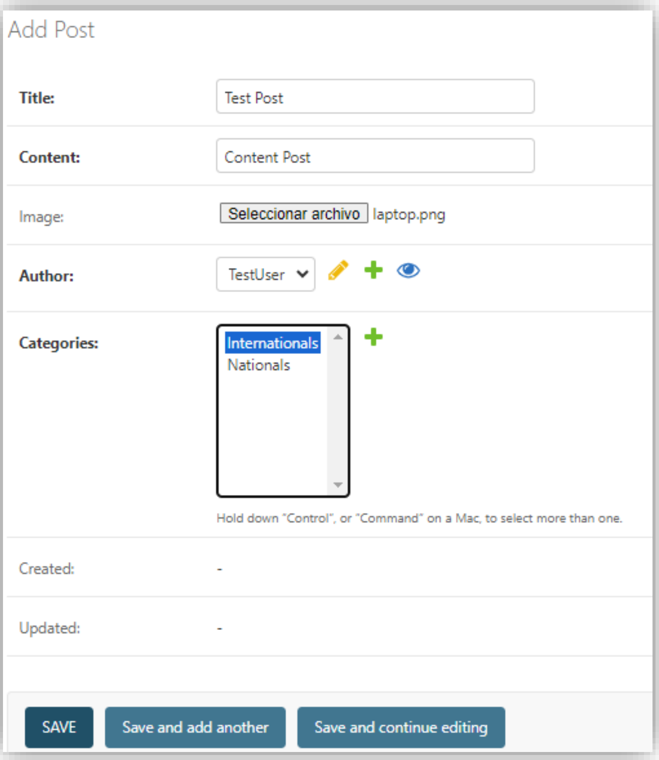
Now we can see the new model in the admin panel



Adding a category and a Post

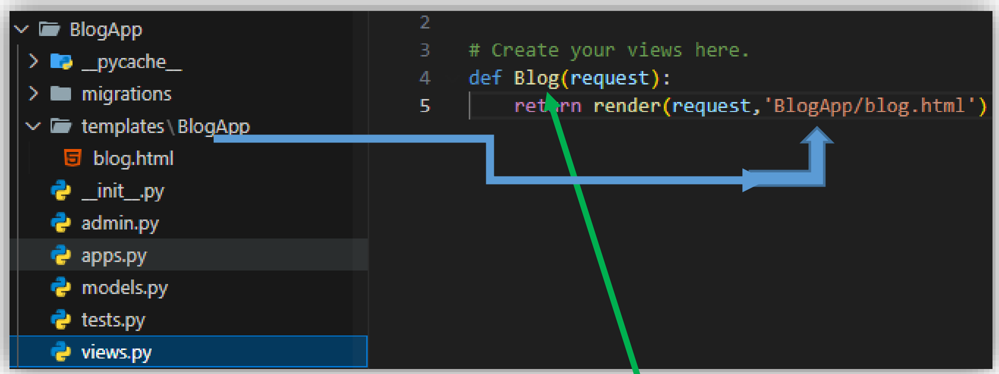

Add Category

Name:	Internationals
Created:	-
Updated:	-


Add Post

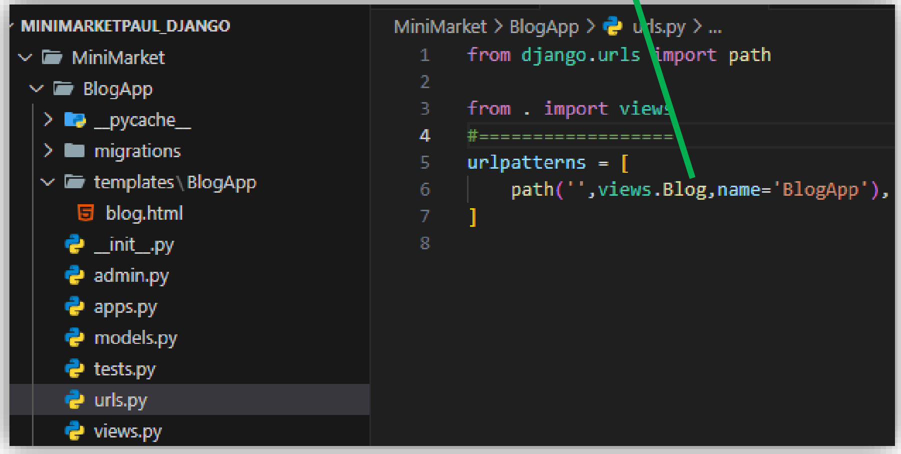
Title:	Test Post
Content:	Content Post
Image:	Seleccionar archivo laptop.png
Author:	TestUser
Categories:	Internationals Nationals Hold down "Control", or "Command" on a Mac, to select more than one.
Created:	-
Updated:	-

To use the page in our specific app, we need to set as follows

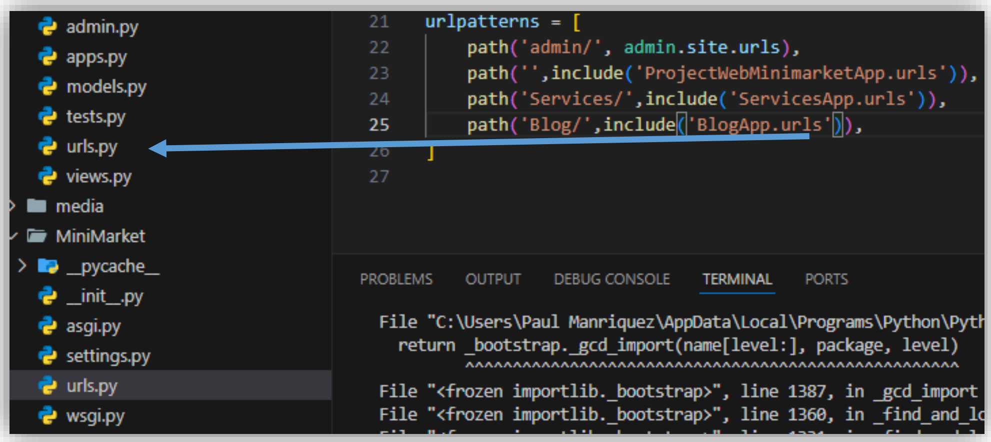


```python

# Create your views here.
def Blog(request):
    return render(request,'BlogApp/blog.html')
```

Register the new url to the main app

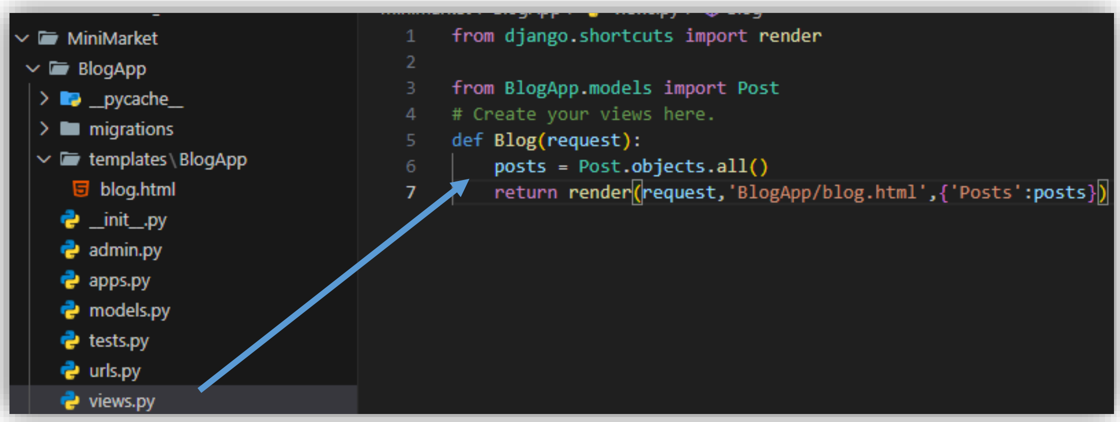


```python
from django.urls import path

from . import views
#=================
urlpatterns = [
    path('',views.Blog,name='BlogApp'),
]

```

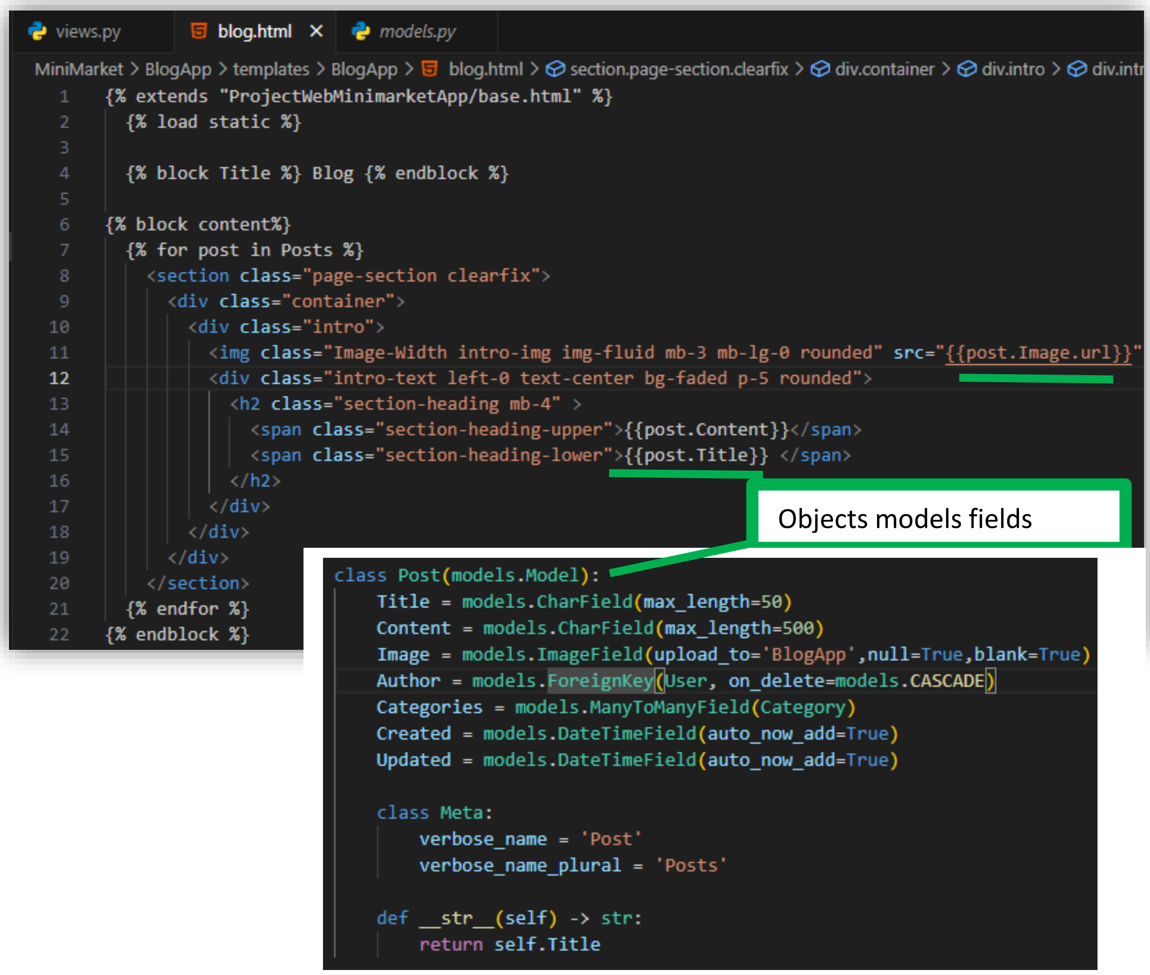


```python
urlpatterns = [
    path('admin/', admin.site.urls),
    path('',include('ProjectWebMinimarketApp.urls')),
    path('Services/',include('ServicesApp.urls')),
    path('Blog/',include('BlogApp.urls')),
]
```

```
File "C:\Users\Paul Manriquez\AppData\Local\Programs\Python\Pyth
  return _bootstrap._gcd_import(name[level:], package, level)
         ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
File "<frozen importlib._bootstrap>", line 1387, in _gcd_import
File "<frozen importlib._bootstrap>", line 1360, in _find_and_lo
```



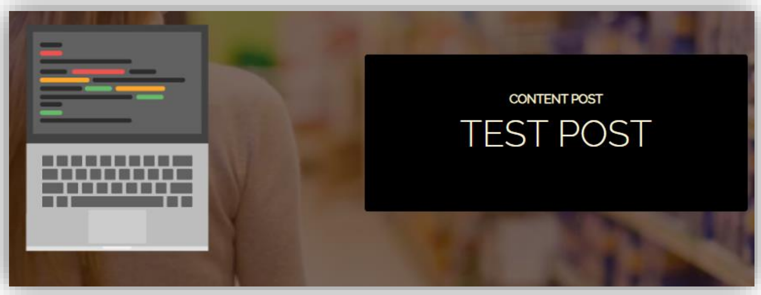
```python
from django.shortcuts import render

from BlogApp.models import Post
# Create your views here.
def Blog(request):
    posts = Post.objects.all()
    return render(request,'BlogApp/blog.html',{'Posts':posts})
```


views.py
blog.html
models.py
MiniMarket > BlogApp > templates > BlogApp > blog.html > section.page-section.clearfix > div.container > div.intro > div.intr
Objects models fields

```html
{% extends "ProjectWebMinimarketApp/base.html" %}
  {% load static %}

  {% block Title %} Blog {% endblock %}

{% block content%}
  {% for post in Posts %}
    <section class="page-section clearfix">
      <div class="container">
        <div class="intro">
          <img class="Image-Width intro-img img-fluid mb-3 mb-lg-0 rounded" src="{{post.Image.url}}"
          <div class="intro-text left-0 text-center bg-faded p-5 rounded">
            <h2 class="section-heading mb-4" >
              <span class="section-heading-upper">{{post.Content}}</span>
              <span class="section-heading-lower">{{post.Title}} </span>
            </h2>
          </div>
        </div>
      </div>
    </section>
  {% endfor %}
{% endblock %}
```

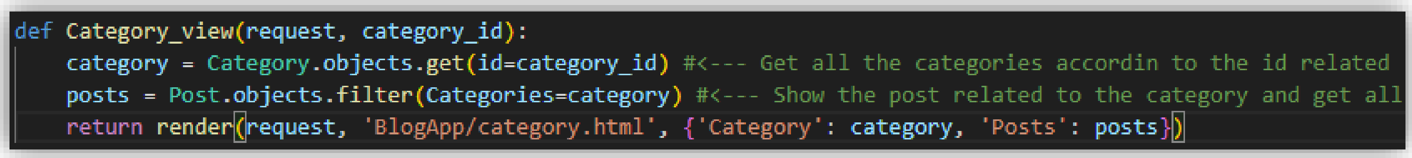
```python
class Post(models.Model):
    Title = models.CharField(max_length=50)
    Content = models.CharField(max_length=500)
    Image = models.ImageField(upload_to='BlogApp',null=True,blank=True)
    Author = models.ForeignKey(User, on_delete=models.CASCADE)
    Categories = models.ManyToManyField(Category)
    Created = models.DateTimeField(auto_now_add=True)
    Updated = models.DateTimeField(auto_now_add=True)

    class Meta:
        verbose_name = 'Post'
        verbose_name_plural = 'Posts'

    def __str__(self) -> str:
        return self.Title
```

Now we can see displayed a post created from the admin panel



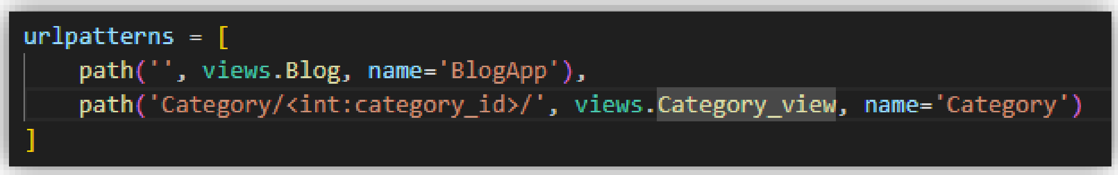
Filtering by Category id parameter:

In this section we are adding a new view wich goal is to filter by a parameter, get all the post but filtered by category, so since ‘category_id’ comes like a parameter , this parameter is being used as the id of the category that corresponds and then we are getting the post corresponding to that category



```
def Category_view(request, category_id):
    category = Category.objects.get(id=category_id) #<--- Get all the categories accordin to the id related
    posts = Post.objects.filter(Categories=category) #<--- Show the post related to the category and get all
    return render(request, 'BlogApp/category.html', {'Category': category, 'Posts': posts})
```

Figure 1 views.py BlogApp



```
urlpatterns = [
    path('', views.Blog, name='BlogApp'),
    path('Category/<int:category_id>/', views.Category_view, name='Category')
]
```

Figure 2urls.py BlogApp

Quote: Since Category is the name of the model data base, the endpoint Category_view cannot be called as Category