



Python django

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Setting up the environment

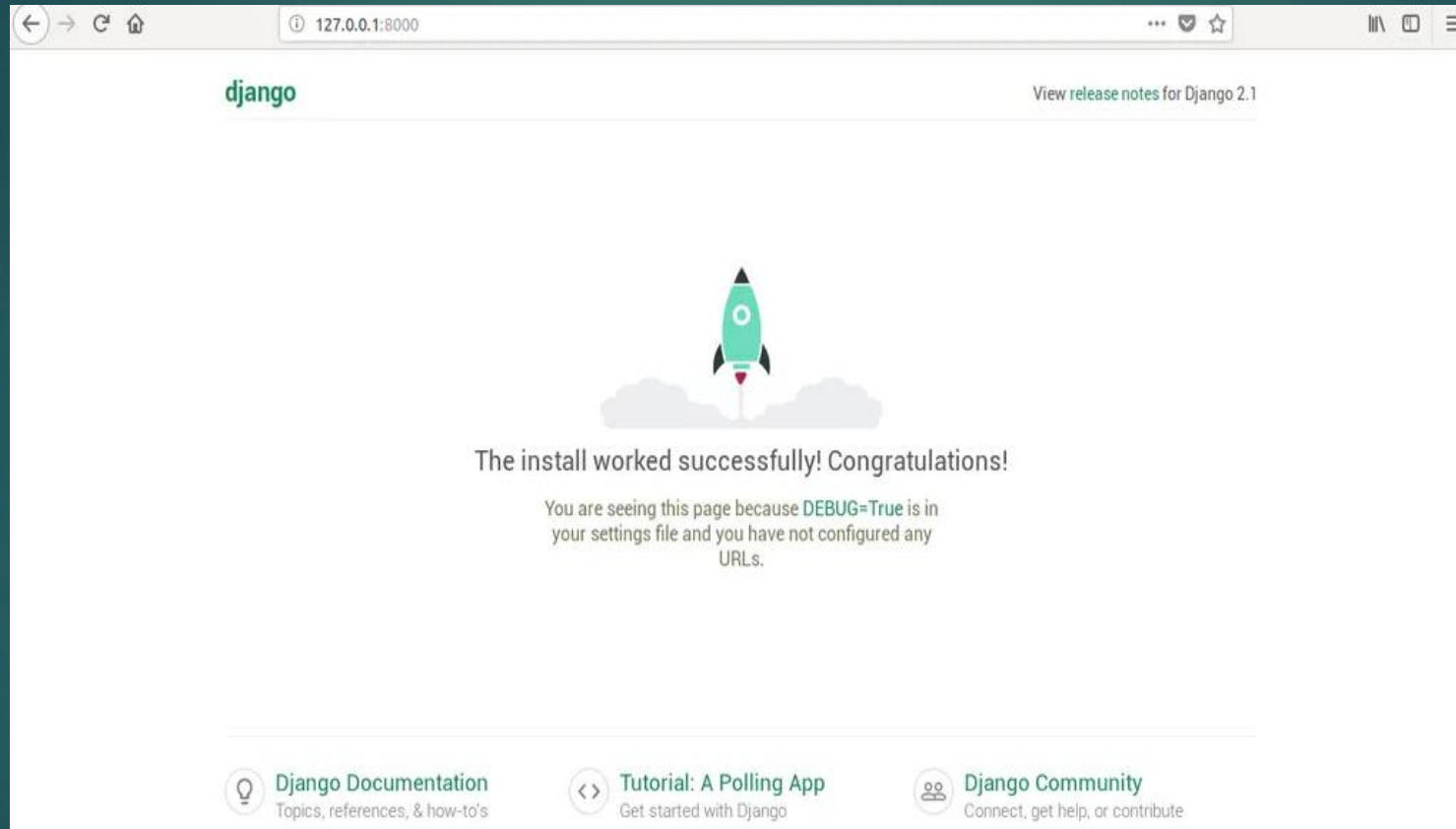
- ▶ First install the latest version of the python and Django. You can easily install them using pip install command. And then the next thing is that you have to install the pipenv so that you can put Django in your project directory.

Setting up the environment

- Open the terminal and navigate to a designated directory (eg. test site).
- In the terminal type `mkdir "folder name"` (eg. `Mkdir site`).
- And install Django type and type `Python manage.py startproject django_project`
- to avoid to many same directory just type `django-admin startproject file name` and add a dot to the last part of the command .
- And also we want to add an app folder type `Python manage.py startapp blog`
- And after that we have to run our server so first we have to type `Python manage.py runserver`.
- And look for an http address and copy it and run it on your browser.
- Note: carefull with the url it will not run if you put s on the `https://` unless you modify it but do not worry it is just for beginner.
- For pro: you can change the port to what you like just type `python manage.py runserver 5000`.

You can set it if you are using the same local ports like viewing html on a browser or etc.

As the previous process is completed and working the server is functioning and showing a website with something like this. And if it does let begin the creation



Command Prompt

C:\Users\ACER_LAPTOP\site\django_project>Python manage.py createsuperuser

System check identified some issues:

WARNINGS:

blog.Post: (models.W042) Auto-created primary key used when not defining a primary key type, by default 'django.db.models.AutoField'.

HINT: Configure the DEFAULT_AUTO_FIELD setting or the BlogConfig.default_auto_field attribute to point to a subclass of AutoField, e.g. 'django.db.models.BigAutoField'.

users.Profile: (models.W042) Auto-created primary key used when not defining a primary key type, by default 'django.db.models.AutoField'.

HINT: Configure the DEFAULT_AUTO_FIELD setting or the UsersConfig.default_auto_field attribute to point to a subclass of AutoField, e.g. 'django.db.models.BigAutoField'.

Username (leave blank to use 'untameconrad'):

Email address: jjemcoronado@gmail.com

Password:

Password (again):

Error: Your passwords didn't match.

Password:

Password (again):

Error: Your passwords didn't match.

Password:

Password (again):

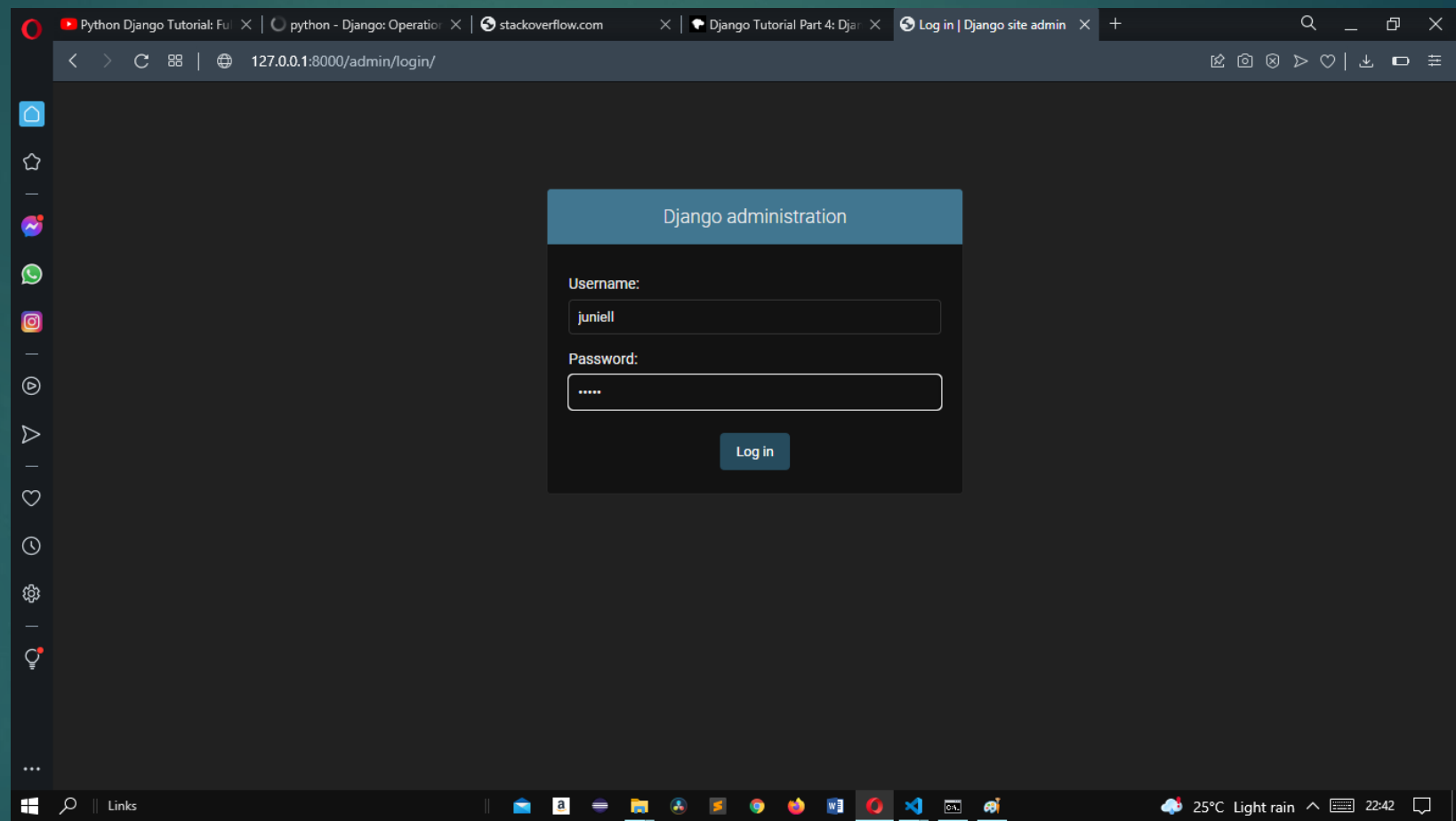
This password is too common.

This password is entirely numeric.

Bypass password validation and create user anyway? [y/N]: y

Superuser created successfully.

C:\Users\ACER_LAPTOP\site\django_project>



Python Django Tutorial: Full Course

python - Django: Operations

stackoverflow.com

Django Tutorial Part 4: Django

Site administration | Django

127.0.0.1:8000/admin/

Would you like the password manager to save the password for "127.0.0.1:8000"?

SaveNever

Django administration

WELCOME, JUNIELL. [VIEW SITE](#) / [CHANGE PASSWORD](#) / [LOG OUT](#)

Site administration

AUTHENTICATION AND AUTHORIZATION

Groups

+ AddChange

Users

+ AddChange

BLOG

Posts

+ AddChange

USERS

Profiles

+ AddChange

Recent actions


My actions

None available

Links

25°C Light rain 22:43

<> about.html X

blog > Templates > blog > <> about.html >  h1

1 {% extends "blog/base.html" %}

2 {% block content %}

3 | <h1>About Page</h1>

4 {% endblock content %}

base.html

blog > Templates > blog > base.html > html > head

```
1  {% load static %}
2  <!DOCTYPE html>
3  <html>
4  <head>
5
6      <!-- Required meta tags -->
7      <meta charset="utf-8">
8      <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
9
10     <!-- Bootstrap CSS -->
11     <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css" integrity="sha384-Gn5384xqQ1achXA+058RXPxPg6fy4IWvTNh0E263XmFcJ1SAwiGgFaw/dAiS6JXm" crossorigin="anonymous">
12
13     <link rel="stylesheet" type="text/css" href="{% static 'blog/main.css' %}">
14
15     {% if title %}
16     <title>Django Blog - {{ title }}</title>
17     {% else %}
18     <title>Django Blog</title>
19     {% endif %}
20 </head>
21 <body>
22     <header class="site-header">
23         <nav class="navbar navbar-expand-md navbar-dark bg-steel fixed-top">
24             <div class="container">
25                 <a class="navbar-brand mr-4" href="{% url 'blog-home' %}">Django Blog</a>
26                 <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarToggle" aria-controls="navbarToggle" aria-expanded="false" aria-label="Toggle navigation">
27                     <span class="navbar-toggler-icon"></span>
28                 </button>
29                 <div class="collapse navbar-collapse" id="navbarToggle">
30                     <div class="navbar-nav mr-auto">
31                         <a class="nav-item nav-link" href="{% url 'blog-home' %}">Home</a>
32                         <a class="nav-item nav-link" href="{% url 'blog-about' %}">About</a>
33                     </div>
34                     <!-- Navbar Right Side -->
35                     <div class="navbar-nav">
36                         {% if user.is_authenticated %}
37                         <a class="nav-item nav-link" href="{% url 'post-create' %}">New Post</a>
38                         <a class="nav-item nav-link" href="{% url 'profile' %}">Profile</a>
39                         <a class="nav-item nav-link" href="{% url 'logout' %}">Logout</a>
40                         {% else %}
41                         <a class="nav-item nav-link" href="{% url 'login' %}">Login</a>
42                         <a class="nav-item nav-link" href="{% url 'register' %}">Register</a>
43                         {% endif %}
44                     </div>
45                 </div>
46             </div>
47         </nav>
48     </header>
49     <main role="main" class="container">
50         <div class="row">
```

<> home.html X

blog > Templates > blog > <> home.html > ...

```
1  {% extends "blog/base.html" %}
2  {% block content %}
3      {% for post in posts %}
4          <article class="media content-section">
5              
6              <div class="media-body">
7                  <div class="article-metadata">
8                      <a class="mr-2" href="{% url 'user-posts' post.author.username %}">{{ post.author }}</a>
9                      <small class="text-muted">{{ post.date_posted|date:"F d, Y" }}</small>
10                 </div>
11                 <h2><a class="article-title" href="{% url 'post-detail' post.id %}">{{ post.title }}</a></h2>
12                 <p class="article-content">{{ post.content }}</p>
13             </div>
14         </article>
15     {% endfor %}
16     {% if is_paginated %}
17
18         {% if page_obj.has_previous %}
19             <a class="btn btn-outline-info mb-4" href="?page=1">First</a>
20             <a class="btn btn-outline-info mb-4" href="?page={{ page_obj.previous_page_number }}">Previous</a>
21         {% endif %}
22
23         {% for num in page_obj.paginator.page_range %}
24             {% if page_obj.number == num %}
25                 <a class="btn btn-info mb-4" href="?page={{ num }}">{{ num }}</a>
26             {% elif num > page_obj.number|add:'-3' and num < page_obj.number|add:'3' %}
27                 <a class="btn btn-outline-info mb-4" href="?page={{ num }}">{{ num }}</a>
28             {% endif %}
29         {% endfor %}
30
31         {% if page_obj.has_next %}
32             <a class="btn btn-outline-info mb-4" href="?page={{ page_obj.next_page_number }}">Next</a>
33             <a class="btn btn-outline-info mb-4" href="?page={{ page_obj.paginator.num_pages }}">Last</a>
34         {% endif %}
35
36     {% endif %}
37 {% endblock content %}
```

<> post_detail.html X

blog > Templates > blog > <> post_detail.html > ...

```
1  {% extends "blog/base.html" %}
2  {% block content %}
3      <article class="media content-section">
4          
5          <div class="media-body">
6              <div class="article-metadata">
7                  <a class="mr-2" href="{% url 'user-posts' object.author.username %}">{{ object.author }}</a>
8                  <small class="text-muted">{{ object.date_posted|date:"F d, Y" }}</small>
9                  {% if object.author == user %}
10                     <div>
11                         <a class="btn btn-secondary btn-sm mt-1 mb-1" href="{% url 'post-update' object.id %}">Update</a>
12                         <a class="btn btn-danger btn-sm mt-1 mb-1" href="{% url 'post-delete' object.id %}">Delete</a>
13                     </div>
14                 {% endif %}
15             </div>
16             <h2 class="article-title">{{ object.title }}</h2>
17             <p class="article-content">{{ object.content }}</p>
18         </div>
19     </article>
20 {% endblock content %}
```

post_confirm_delete.html X

blog > Templates > blog > post_confirm_delete.html > ...

```
1  {% extends "blog/base.html" %}
2  {% block content %}
3      <div class="content-section">
4          <form method="POST">
5              {% csrf_token %}
6              <fieldset class="form-group">
7                  <legend class="border-bottom mb-4">Delete Post</legend>
8                  <h2>Are you sure you want to delete the post "{{ object.title }}"</h2>
9              </fieldset>
10             <div class="form-group">
11                 <button class="btn btn-outline-danger" type="submit">Yes, Delete</button>
12                 <a class="btn btn-outline-secondary" href="{% url 'post-detail' object.id %}">Cancel</a>
13             </div>
14         </form>
15     </div>
16 {% endblock content %}
```

urls.py

blog > urls.py > ...

```
1 from django.urls import path
2 from .views import (
3     PostListView,
4     PostDetailView,
5     PostCreateView,
6     PostUpdateView,
7     PostDeleteView,
8     UserPostListView
9 )
10 from . import views
11
12 urlpatterns = [
13     path('', PostListView.as_view(), name='blog-home'),
14     path('user/<str:username>', UserPostListView.as_view(), name='user-posts'),
15     path('post/<int:pk>/', PostDetailView.as_view(), name='post-detail'),
16     path('post/new/', PostCreateView.as_view(), name='post-create'),
17     path('post/<int:pk>/update/', PostUpdateView.as_view(), name='post-update'),
18     path('post/<int:pk>/delete/', PostDeleteView.as_view(), name='post-delete'),
19     path('about/', views.about, name='blog-about'),
20 ]
```

views.py

```
blog > views.py > PostDeleteView > test_func
1 from django.shortcuts import render, get_object_or_404
2 from django.contrib.auth.mixins import LoginRequiredMixin, UserPassesTestMixin
3 from django.contrib.auth.models import User
4 from django.views.generic import (
5     ListView,
6     DetailView,
7     CreateView,
8     UpdateView,
9     DeleteView
10 )
11 from .models import Post
12
13 def home(request):
14     context = {
15         'posts': Post.objects.all()
16     }
17     return render(request, 'blog/home.html', context)
18
19 class PostListView(ListView):
20     model = Post
21     template_name = 'blog/home.html' # <app>/<model>_<viewtype>.html
22     context_object_name = 'posts'
23     ordering = ['-date_posted']
24     paginate_by = 5
25
26 class UserPostListView(ListView):
27     model = Post
28     template_name = 'blog/user_posts.html' # <app>/<model>_<viewtype>.html
29     context_object_name = 'posts'
30     paginate_by = 5
31
32     def get_queryset(self):
33         user = get_object_or_404(User, username=self.kwargs.get('username'))
34         return Post.objects.filter(author=user).order_by('-date_posted')
35
36 class PostDetailView(DetailView):
37     model = Post
38
```

```
38
39 class PostCreateView(LoginRequiredMixin, CreateView):
40     model = Post
41     fields = ['title', 'content']
42
43     def form_valid(self, form):
44         form.instance.author = self.request.user
45         return super().form_valid(form)
46
47 class PostUpdateView(LoginRequiredMixin, UserPassesTestMixin, UpdateView):
48     model = Post
49     fields = ['title', 'content']
50
51     def form_valid(self, form):
52         form.instance.author = self.request.user
53         return super().form_valid(form)
54
55     def test_func(self):
56         post = self.get_object()
57         if self.request.user == post.author:
58             return True
59         return False
60
61 class PostDeleteView(LoginRequiredMixin, UserPassesTestMixin, DeleteView):
62     model = Post
63     success_url = '/'
64
65     def test_func(self):
66         post = self.get_object()
67         if self.request.user == post.author:
68             return True
69         return False
70
71 def about(request):
72     return render(request, 'blog/about.html', {'title': 'About'})

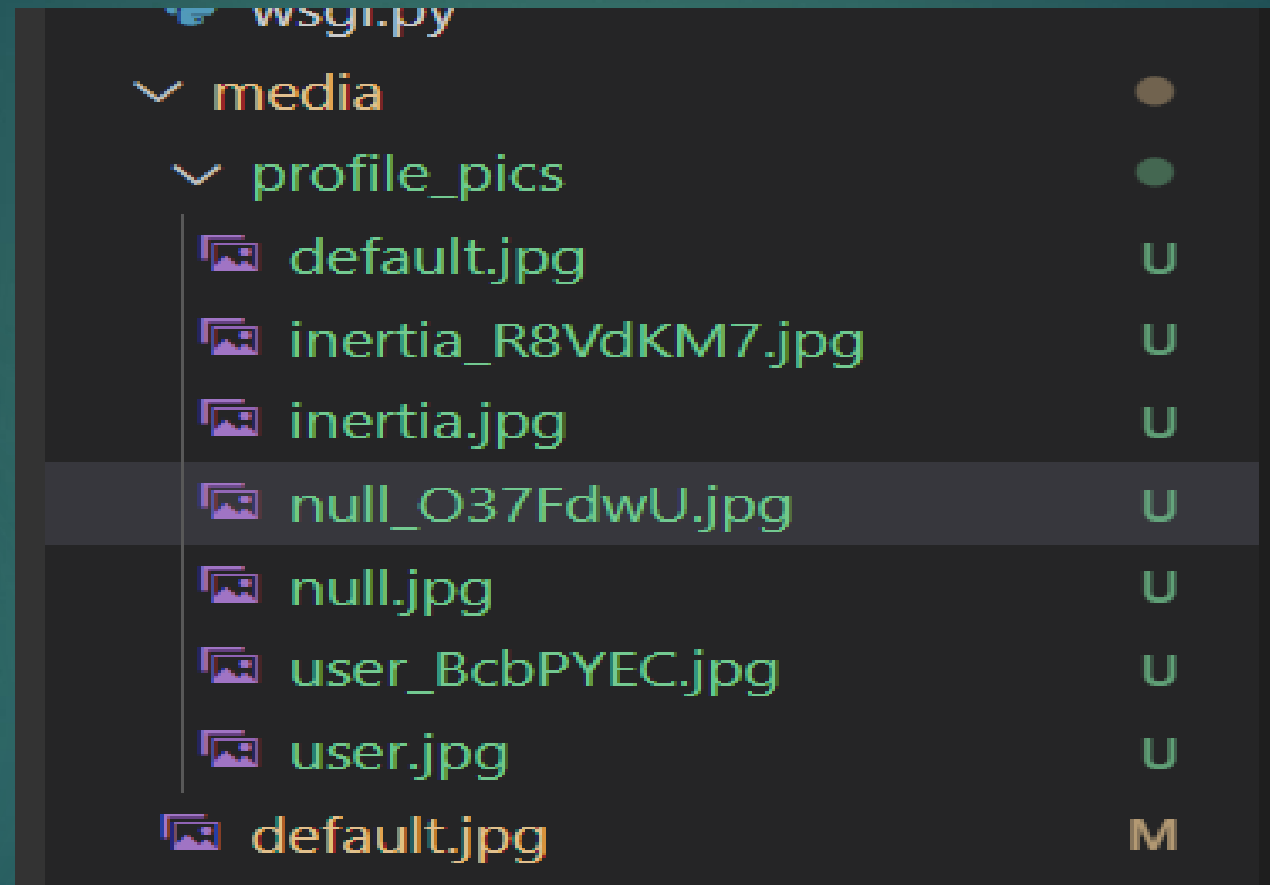
```

views.py urls.py X

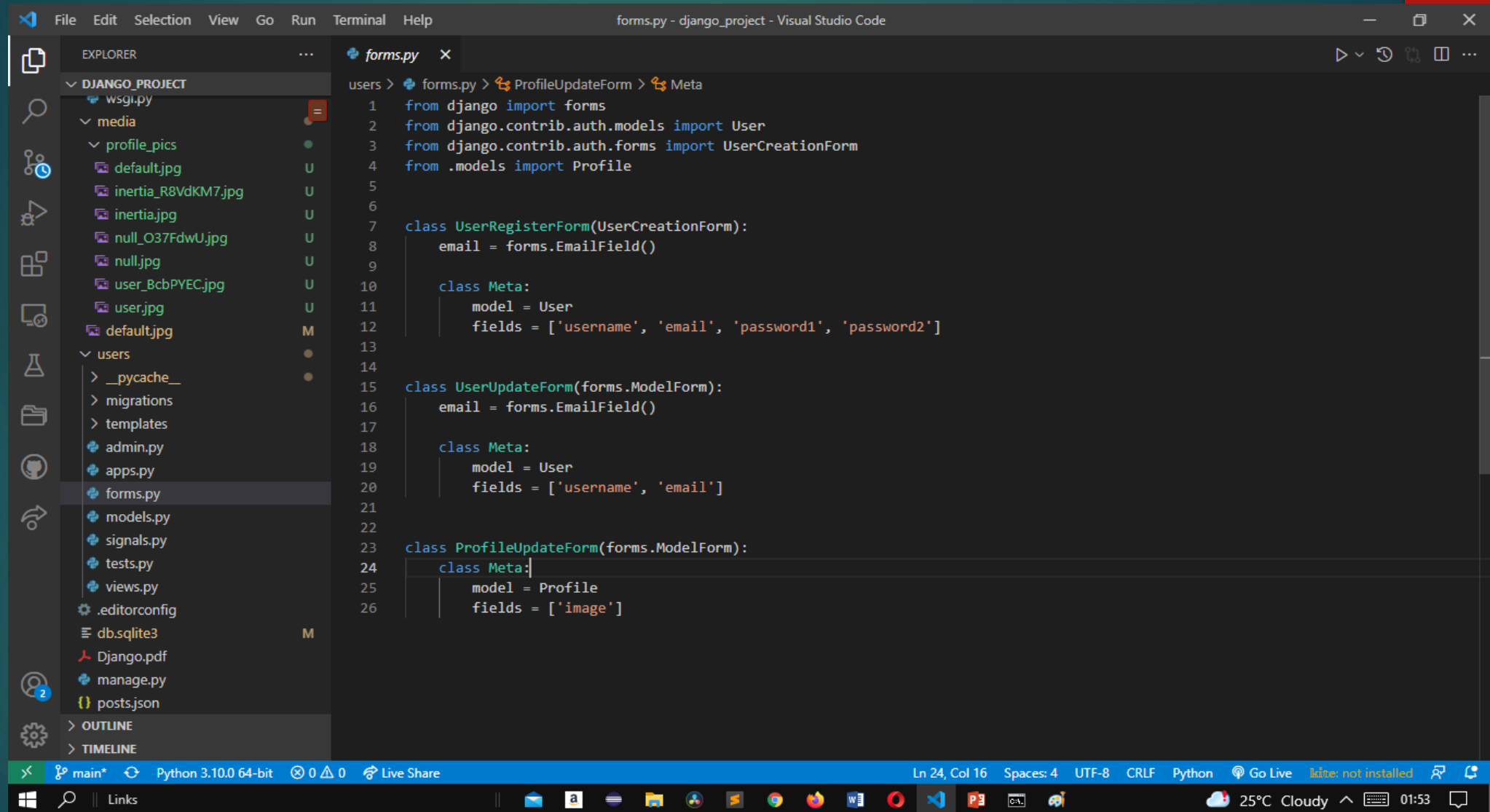
django_project > urls.py > ...

```
17 from django.contrib.auth import views as auth_views
18 from django.urls import path, include
19 from django.conf import settings
20 from django.conf.urls.static import static
21 from users import views as user_views
22
23 urlpatterns = [
24     path('admin/', admin.site.urls),
25     path('register/', user_views.register, name='register'),
26     path('profile/', user_views.profile, name='profile'),
27     path('login/', auth_views.LoginView.as_view(template_name='users/login.html'), name='login'),
28     path('logout/', auth_views.LogoutView.as_view(template_name='users/logout.html'), name='logout'),
29     path('password-reset/',
30         auth_views.PasswordResetView.as_view(
31             template_name='users/password_reset.html'
32         ),
33         name='password_reset'),
34     path('password-reset/done/',
35         auth_views.PasswordResetDoneView.as_view(
36             template_name='users/password_reset_done.html'
37         ),
38         name='password_reset_done'),
39     path('password-reset-confirm/<uidb64>/<token>/',
40         auth_views.PasswordResetConfirmView.as_view(
41             template_name='users/password_reset_confirm.html'
42         ),
43         name='password_reset_confirm'),
44     path('password-reset-complete/',
45         auth_views.PasswordResetCompleteView.as_view(
46             template_name='users/password_reset_complete.html'
47         ),
48         name='password_reset_complete'),
49     path('', include('blog.urls')),
50 ]
51
52
53 if settings.DEBUG:
54     urlpatterns += static(settings.MEDIA_URL, document_root=settings.MEDIA_ROOT)
```

Create a folder named media to store some photos. This serves as profile to the users.



- Create another app folder and named it users.



The screenshot shows the Visual Studio Code interface with a Django project. The Explorer panel on the left displays the project structure, including a new 'users' app folder. The main editor shows the 'forms.py' file for the 'users' app, containing three form classes: 'UserRegisterForm', 'UserUpdateForm', and 'ProfileUpdateForm'.

```
forms.py - django_project - Visual Studio Code

EXPLORER
└─ DJANGO_PROJECT
   └─ wsgi.py
      └─ media
         └─ profile_pics
            ├── default.jpg
            ├── inertia_R8VdKM7.jpg
            ├── inertia.jpg
            ├── null_O37FdWU.jpg
            ├── null.jpg
            ├── user_BcbPYEC.jpg
            ├── user.jpg
            └─ default.jpg
         └─ users
            ├── __pycache__
            ├── migrations
            ├── templates
            ├── admin.py
            ├── apps.py
            └─ forms.py
            ├── models.py
            ├── signals.py
            ├── tests.py
            └─ views.py
            ├── .editorconfig
            ├── db.sqlite3
            ├── Django.pdf
            ├── manage.py
            └─ posts.json
            └─ OUTLINE
            └─ TIMELINE

forms.py
1 from django import forms
2 from django.contrib.auth.models import User
3 from django.contrib.auth.forms import UserCreationForm
4 from .models import Profile
5
6
7 class UserRegisterForm(UserCreationForm):
8     email = forms.EmailField()
9
10     class Meta:
11         model = User
12         fields = ['username', 'email', 'password1', 'password2']
13
14
15 class UserUpdateForm(forms.ModelForm):
16     email = forms.EmailField()
17
18     class Meta:
19         model = User
20         fields = ['username', 'email']
21
22
23 class ProfileUpdateForm(forms.ModelForm):
24     class Meta:
25         model = Profile
26         fields = ['image']
```

main* Python 3.10.0 64-bit 0 0 Live Share Ln 24, Col 16 Spaces: 4 UTF-8 CRLF Python Go Live idle: not installed 25°C Cloudy 01:53

Visual Studio Code interface showing a Django project structure and a Python signal handler.

EXPLORER

- DJANGO_PROJECT
 - wsgi.py
 - media
 - profile_pics
 - default.jpg
 - inertia_R8VdKM7.jpg
 - inertia.jpg
 - null_O37FdwU.jpg
 - null.jpg
 - user_BcbPYEC.jpg
 - user.jpg
 - default.jpg
 - users
 - __pycache__
 - migrations
 - templates
 - admin.py
 - apps.py
 - forms.py
 - models.py
 - signals.py
 - tests.py
 - views.py
 - .editorconfig
 - db.sqlite3
 - Django.pdf
 - manage.py
 - posts.json
 - OUTLINE
 - TIMELINE

signals.py

```
1 from django.db.models.signals import post_save
2 from django.contrib.auth.models import User
3 from django.dispatch import receiver
4 from .models import Profile
5
6
7 @receiver(post_save, sender=User)
8 def create_profile(sender, instance, created, **kwargs):
9     if created:
10         Profile.objects.create(user=instance)
11
12
13 @receiver(post_save, sender=User)
14 def save_profile(sender, instance, **kwargs):
15     instance.profile.save()
```

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF Python Go Live [linter: not installed](#)

25°C Cloudy 01:55

File Edit Selection View Go Run Terminal Help • views.py - django_project - Visual Studio Code

EXPLORER

- DJANGO_PROJECT
 - views.py
 - django_project
 - __pycache__
 - settings.py
 - urls.py
 - wsgi.py
 - media
 - profile_pics
 - default.jpg
 - inertia_R8VdKM7.jpg
 - inertia.jpg
 - null_O37FdwU.jpg
 - null.jpg
 - user_BcbPYEC.jpg
 - user.jpg
 - default.jpg
 - users
 - __pycache__
 - migrations
 - templates
 - admin.py
 - apps.py
 - forms.py
 - models.py
 - signals.py
 - tests.py
 - views.py
 - .editorconfig
 - db.sqlite3
 - Django.pdf
 - manage.py
 - posts.json
- OUTLINE
- TIMELINE

views.py

```
1 from django.shortcuts import render, redirect
2 from django.contrib import messages
3 from django.contrib.auth.decorators import login_required
4 from .forms import UserRegisterForm, UserUpdateForm, ProfileUpdateForm
5
6 def register(request):
7     if request.method == 'POST':
8         form = UserRegisterForm(request.POST)
9         if form.is_valid():
10             form.save()
11             username = form.cleaned_data.get('username')
12             messages.success(request, f'Your account has been created! You are now able to log in')
13             return redirect('login')
14     else:
15         form = UserRegisterForm()
16     return render(request, 'users/register.html', {'form': form})
17
18 @login_required
19 def profile(request):
20     if request.method == 'POST':
21         u_form = UserUpdateForm(request.POST, instance=request.user)
22         p_form = ProfileUpdateForm(request.POST,
23                                   request.FILES,
24                                   instance=request.user.profile)
25         if u_form.is_valid() and p_form.is_valid():
26             u_form.save()
27             p_form.save()
28             messages.success(request, f'Your account has been updated!')
29             return redirect('profile')
30     else:
31         u_form = UserUpdateForm(instance=request.user)
32         p_form = ProfileUpdateForm(instance=request.user.profile)
33
34     context = {
35         'u_form': u_form,
36         'p_form': p_form
37     }
38
39
40     return render(request, 'users/profile.html', context)
```

Ln 25, Col 52 Spaces: 4 UTF-8 CRLF Python Go Live Edit: not installed

25°C Cloudy 01:56

A screenshot of a web browser displaying a Django Blog profile page. The browser's address bar shows the URL '127.0.0.1:8000/profile/'. The page has a dark blue header with the site name 'Django Blog' and navigation links 'Home' and 'About'. On the right side of the header are links for 'New Post', 'Profile', and 'Logout'. A green notification banner at the top of the profile section states 'Your account has been updated!'. The profile section features a circular profile picture of a person with glasses, the username 'juniell', and the email address 'jjemcoronado@gmail.com'. Below this is a 'Profile Info' section with three input fields: 'Username*' containing 'juniell', 'Email*' containing 'jjemcoronado@gmail.com', and 'Image*' with a text label 'Currently: profile_pics/user_BcbPYEC.jpg' and a 'Change:' button. At the bottom of the image section is a 'Choose File' button and the text 'No file chosen'. To the right of the profile section is a sidebar titled 'Our Sidebar' with the text 'You can put any information here you'd like.' and a list of categories: 'Latest Posts', 'Announcements', 'Calendars', and 'etc'. The browser's taskbar at the bottom shows various application icons and system information like '25°C Light rain' and '23:43'.

