Blogging Platform using Django

Last Updated : 24 Sep, 2024

foundation to build upon. In this article, we will explore the process of building a blogging platform using Django, covering key concepts and steps along the way.

Blogging Platform using Django

A blogging platform using Django is a web application built with the Django framework that allows users to create, publish, and manage blog posts on a website, providing a user-friendly content management system for bloggers.

Setting Up the Project Folder

```
django-admin startproject <project_name>
cd <project_name>
python manage.py startapp gallery
```

model.py: Here we have created a Product table with name, description, image, created_at, and updated_at fields in the table.

Python

```python
from django.db import models

class Product(models.Model):
    name = models.CharField(max_length=255)
    description = models.TextField()
    image = models.ImageField(upload_to='products/')
    created_at = models.DateTimeField(auto_now_add=True)
    updated_at = models.DateTimeField(auto_now=True)

    def __str__(self):
        return self.name

    def edit(self, name, description, image):
        self.name = name
        self.description = description
        self.image = image
        self.save()


    def short_description(self):
        # Split the description into words
        words = self.description.split()
        if len(words) > 50:
            # Join the first 50 words and add "..." at the end
            return ' '.join(words[:30]) + '...'
        else:
            # If the description is already less than 50 words, return it as is
            return self.description
```

admin.py: Here we are registering our table in the admin.

Python

```
from django.contrib import admin
from .models import Product

# Register your models here.
admin.site.register(Product)
```

views.py: Here's a brief explanation of each part:

- product_list(request): This view retrieves a list of all products from the database using the Product model and renders a template named 'index.html', passing the list of products to the template.
- product_detail(request, pk): This view retrieves a specific product by its primary key (pk) from the database and renders a template named 'index2.html', passing the product data to the template.

- edit_product(request, pk): This view handles editing a product. It retrieves the product to edit, processes a submitted form to update the product's information, and redirects to the product list if the form is valid. Otherwise, it displays the form for editing.
- delete_product(request, pk): Similar to the edit view, this view handles product deletion. If a POST request is made, it deletes the product and redirects to the product list. Otherwise, it displays a confirmation page for deleting the product.

Python

```python
from django.shortcuts import render
from .models import Product
from django.http import HttpResponse
from django.shortcuts import render, redirect, get_object_or_404
from .models import Product
from .forms import ProductForm


def product_list(request):
    products = Product.objects.all()
    return render(request, 'myapp/index.html', {'products': products})

def product_detail(request, pk):
    product = Product.objects.get(pk=pk)
    return render(request, 'myapp/index2.html', {'product': product})


def edit_product(request, pk):
    product = get_object_or_404(Product, pk=pk)
    if request.method == 'POST':
        form = ProductForm(request.POST, instance=product)
        if form.is_valid():
            form.save()
            return redirect('product_list')
    else:
        form = ProductForm(instance=product)
    return render(request, 'myapp/edit.html', {'form': form})

def delete_product(request, pk):
    product = get_object_or_404(Product, pk=pk)
    if request.method == 'POST':
        product.delete()
        return redirect('product_list')
    return render(request, 'myapp/delete.html', {'product': product})


def home(request):
    return HttpResponse('Hello, World!')
```

form.py: Here we created a form to edit the blog when a user requests.

Python

```python
from django import forms
from .models import Product

class ProductForm(forms.ModelForm):
    class Meta:
        model = Product
        fields = ['name', 'description', 'image']
```

Image Gallery GUI

In the product list template, it loops through the products queryset and displays each product's name, description, and an image. The blog detail template shows detailed information about each blog and provides a link to go back to the blog home page.

edit.html: HTML file to edit the Blog.

HTML

```html
<h2>Edit Blog Post</h2>
```

```
<form method="post">
    {% csrf_token %}
    {{ form.as_p }}
    <button type="submit">Save Changes</button>
</form>
```

delete.html: HTML file to delete the Blog.

HTML

```
<h2>Delete Blog Post</h2>
<p>Are you sure you want to delete "{{ product.name }}"?</p>
<form method="post">
    {% csrf_token %}
    <button type="submit">Yes, Delete</button>
</form>
```

index.html: HTML file to show all the list of the Blog.

Python

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Blog Website</title>
    <!-- Add Bootstrap CSS link here -->
    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
</head>
<body>
    <div class="container mt-5">
        <h1>Today's New Blogs</h1>
        <div class="row">
            {% for product in products %}
                <div class="col-md-4 mb-4">
                    <div class="card">
```

```
                        <a href="{% url 'product_detail' product.pk %}">
                            <img src="{{ product.image.url }}" alt="{{ product.created_name }}" class="card-img-top">
                        </a>
                        <div class="card-body">
                            <h5 class="card-title">{{ product.name }}</h5>
                            <p class="card-text">{{ product.short_description }}</p>
                            <a href="{% url 'edit_product' product.pk %}">Edit</a>
                            <a href="{% url 'delete_product' product.pk %}">Delete</a> <br>
                            <small class="card-text">Created at: {{ product.created_at }}</small> <br>
                            <small class="card-text">Updated at: {{ product.updated_at }}</small>
                        </div>
                    </div>
                </div>
            {% endfor %}
        </div>
    </div>

    <!-- Add Bootstrap JS and jQuery scripts here (if needed) -->
    <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
    <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.16.0/umd/popper.min.js"></script>
    <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>
</body>
</html>
```

index2.html: HTML file to show the full details of the Blog.

Python

```
<!DOCTYPE html>
```

```
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>{{ product.name }} - Blog Detail</title>
</head>
<body>
    <h1>{{ product.name }} - Blog </h1>

    <div>
        <img src="{{ product.image.url }}" alt="{{ product.name }}" width="200">
    </div>
    <h2>{{ product.name }}</h2>
    <p>{{ product.description }}</p>
    <a href="{% url 'edit_product' product.pk %}">Edit</a>
    <a href="{% url 'delete_product' product.pk %}">Delete</a> <br>

    <a href="{% url 'product_list' %}">Back to Blogs Home Page</a>
</body>
</html>
```

urls.py: Define the URL patterns in the urls.py file of the catalog app to map views to URLs.

Python

```python
from django.urls import path
from . import views

urlpatterns = [
    path('/home', views.home, name='home'),
    path('', views.product_list, name='product_list'),
    path('<int:pk>/', views.product_detail, name='product_detail'),
    path('<int:pk>/edit/', views.edit_product, name='edit_product'),
    path('<int:pk>/delete/', views.delete_product, name='delete_product'),
]
```

urls.py: Add the necessary URL patterns in your project's urls.py.

Python

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

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

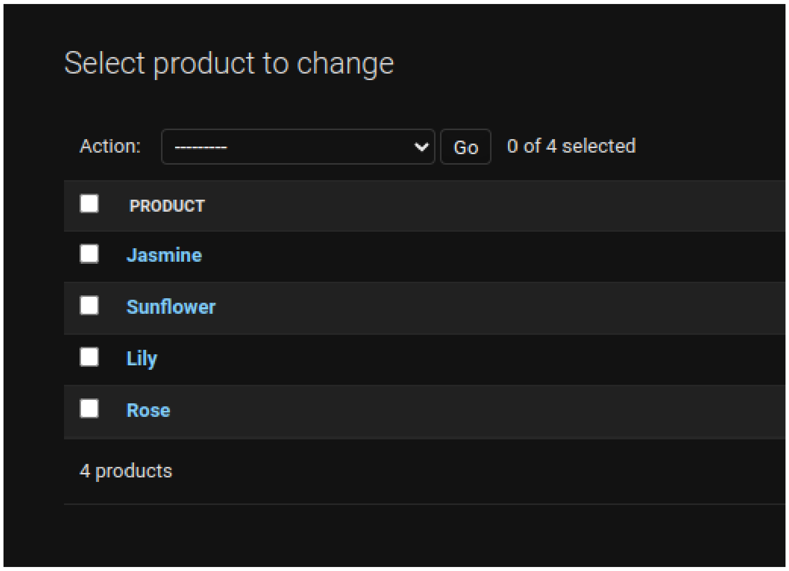
Building a blogging platform is a great project for learning Django. If you're looking to take your Django skills to the next level, consider the **Django Web Development Course** to gain more insight into advanced development techniques.

Deploy the Project

Create a super user to add data into the data base by the following command:

```
python manage.py createsuperuser
```

Now, Go to the http://127.0.0.1:8000/admin/ and add the Images, name and its description.



Select product to change

Action: --------- Go 0 of 4 selected

□	PRODUCT
□	Jasmine
□	Sunflower
□	Lily
□	Rose

4 products

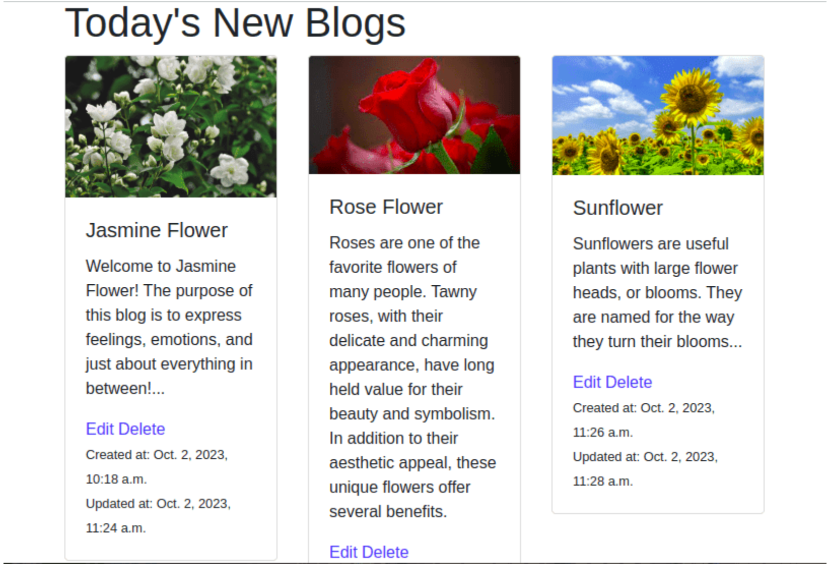
Migrate the data into the database.

```
python manage.py makemigrations
python manage.py migrate
```

Deploy the project

```
python manage.py runserver
```

Output:



Today's New Blogs

Jasmine Flower

Welcome to Jasmine Flower! The purpose of this blog is to express feelings, emotions, and just about everything in between!...

Edit Delete

Created at: Oct. 2, 2023, 10:18 a.m.

Updated at: Oct. 2, 2023, 11:24 a.m.

Rose Flower

Roses are one of the favorite flowers of many people. Tawny roses, with their delicate and charming appearance, have long held value for their beauty and symbolism. In addition to their aesthetic appeal, these unique flowers offer several benefits.

Edit Delete

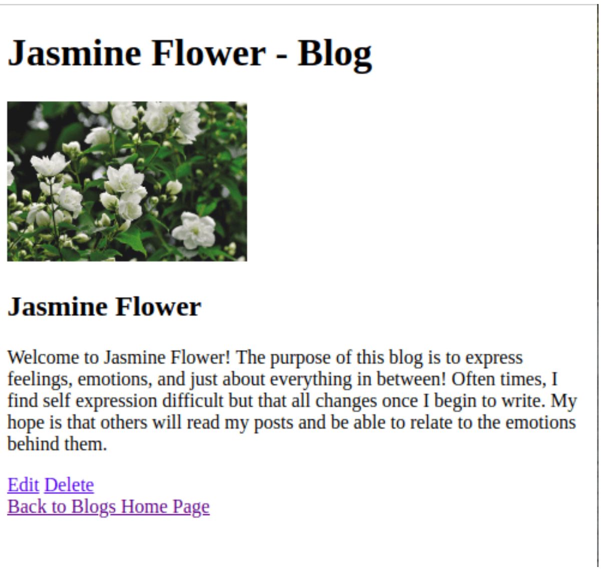
Sunflower

Sunflowers are useful plants with large flower heads, or blooms. They are named for the way they turn their blooms...

Edit Delete

Created at: Oct. 2, 2023, 11:26 a.m.

Updated at: Oct. 2, 2023, 11:28 a.m.

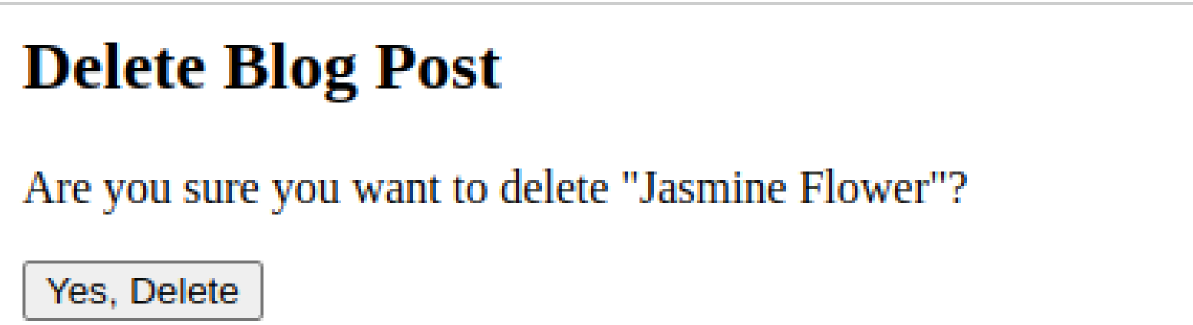


Jasmine Flower - Blog

Jasmine Flower

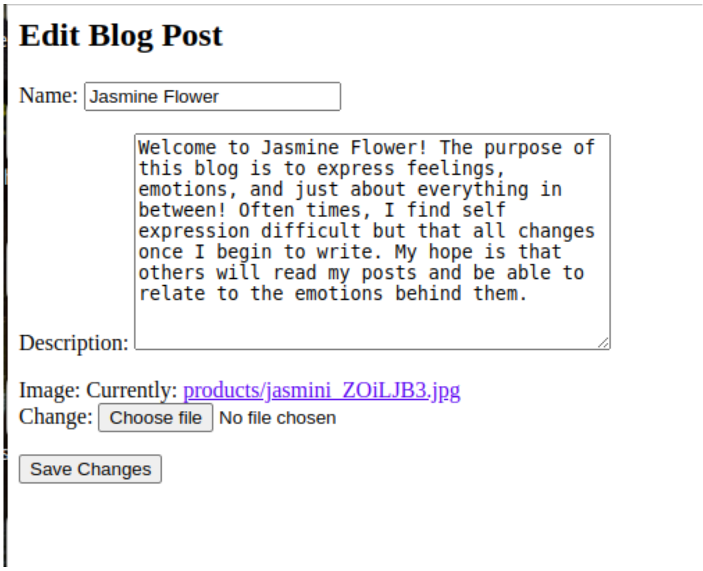
Welcome to Jasmine Flower! The purpose of this blog is to express feelings, emotions, and just about everything in between! Often times, I find self expression difficult but that all changes once I begin to write. My hope is that others will read my posts and be able to relate to the emotions behind them.

Edit Delete
Back to Blogs Home Page



Delete Blog Post

Are you sure you want to delete "Jasmine Flower"?



Edit Blog Post

Name: Jasmine Flower

Description: Welcome to Jasmine Flower! The purpose of this blog is to express feelings, emotions, and just about everything in between! Often times, I find self expression difficult but that all changes once I begin to write. My hope is that others will read my posts and be able to relate to the emotions behind them.

Image: Currently: products/jasmini_ZOiLJB3.jpg
Change: Choose file No file chosen

A amit... 4

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