

DIY Django Mini Blog - Project Report

1. Project Overview

The DIY Django Mini Blog is a feature-rich blogging platform built using Django. It allows users to register, log in, create, read, update, and delete blog posts. Additional features such as a comments section, user profiles, image uploads, and a like system enhance user interaction. The project uses SQLite as the database and Bootstrap for a modern UI. This project was developed with assistance from Cursor AI, which helped streamline code generation and debugging.

2. Features

Minimum Requirements

- **User Authentication:**
 - Secure login, logout, and registration system using Django's built-in authentication.
 - Password hashing for enhanced security.
 - Session management and user verification.
- **Post Management (CRUD):**
 - Users can create, edit, update, and delete blog posts.
 - Post content supports text formatting, images, and links.
 - Each post has a unique slug-based URL for SEO-friendly navigation.
- **Database Integration:**
 - Uses SQLite as the primary database for managing users, posts, and comments.
 - Implements Django ORM for efficient querying and data handling.
 - Supports relational data models for users, posts, comments, and tags.
- **Templates & Styling:**
 - Responsive and user-friendly design using Bootstrap.
 - Modular template system with reusable components (e.g., navbar, footer, post cards).
 - CSS enhancements for a clean and intuitive UI.
- **Admin Panel:**

- Django's built-in admin panel for managing blog posts, users, and comments.
- Secure access control for administrators.

Custom Features

1. Comments Section

- Users can add, view, and delete comments.
- Nested replies (if implemented).
- Restricted to authenticated users.

2. Tags for Posts

- Many-to-many relationship between Post and Tag.
- Clicking a tag filters related posts.

3. Like/Dislike System

- Users can react to posts.
- Prevents duplicate reactions.

4. Image Uploads

- Authors can upload images.
- Validation for supported formats (.jpg, .png).

5. Search Functionality

- Full-text search on post titles, content, and tags.

6. User Profiles

- Extended profiles with bio and profile pictures.
- Displays user activity (posts, likes, comments).

7. Pagination

- Limits displayed posts per page.
- Uses Django's Paginator class.

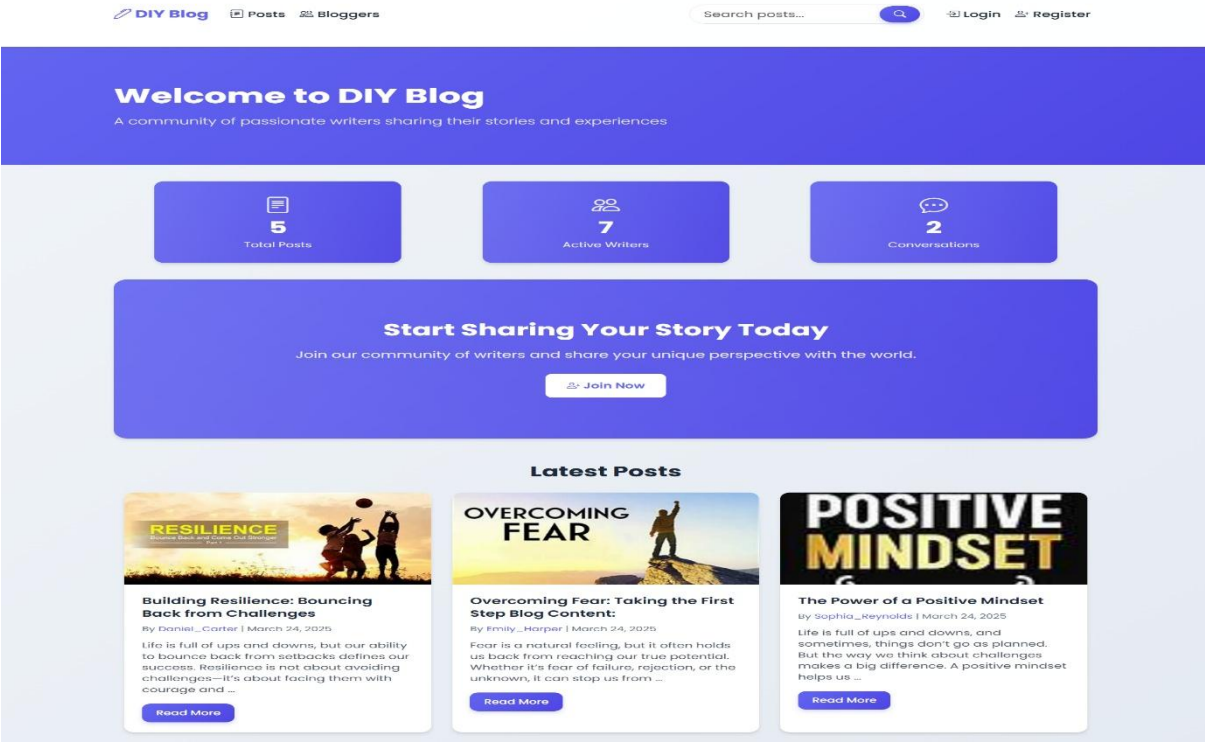
3. Customization Details (Cursor AI Contributions)

- **Code Generation:** Used Cursor AI to generate models, views, and templates efficiently.
- **Debugging Assistance:** AI provided quick bug fixes and syntax corrections.
- **Optimization:** AI-generated code suggestions improved efficiency and performance.

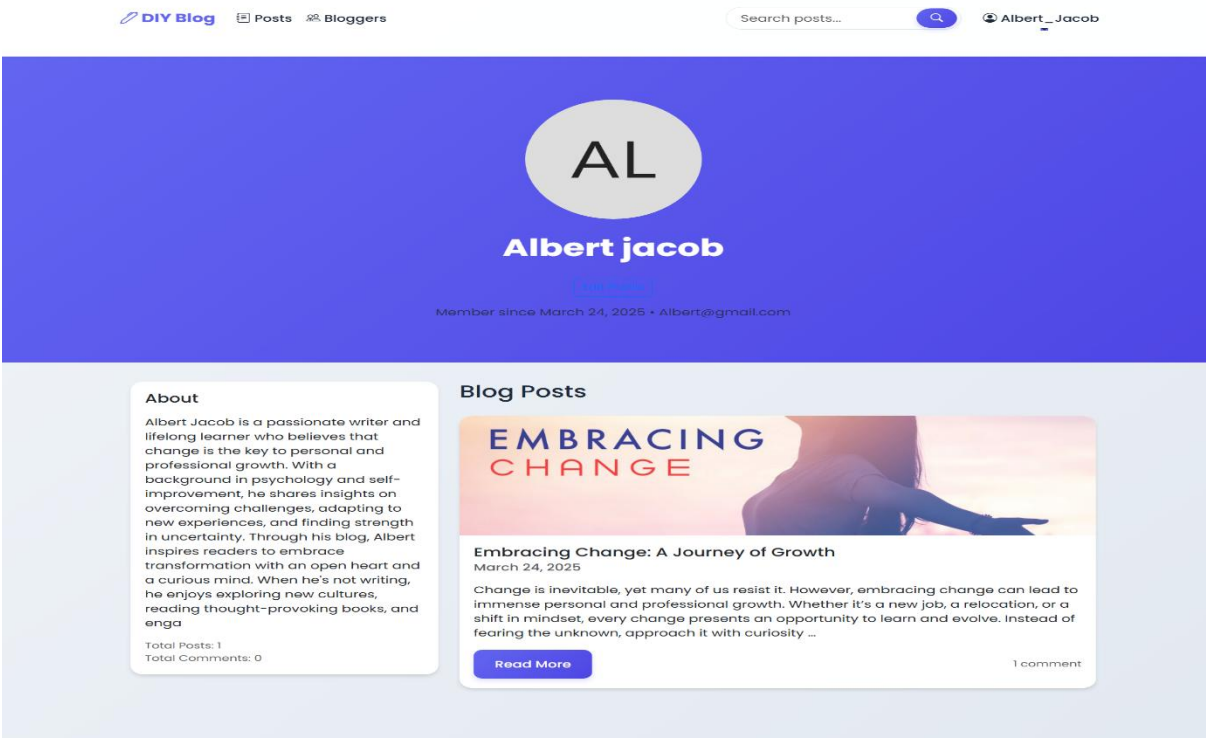
- **Feature Implementation:** Helped streamline authentication logic, pagination, and form validation.

4. SCREENSHOTS

4.1.Home Page - Paginated list of posts with tags



4.2. Profile Page - User bio, posts, and stats.



4.3. All Bloggers - List of registered users.

[DIY Blog](#) [Posts](#) [Bloggers](#) [Albert_Jacob](#)

Our Bloggers

Meet the talented writers behind our blog

A

Aleena_Michael
Member since March 2025

Welcome to my blog! I'm Aleena_Michael.

[View Posts](#)

0 posts

A

Admin
Member since March 2025

Welcome to my blog! I'm Admin.

[View Posts](#)

0 posts

D

Daniel_Carter
Member since March 2025

Daniel Carter is a writer who focuses on motivation and mental strength. He believes in the power of a strong mindset and helps readers develop resilience through his blogs. In his free time, he enjoys hiking, photography, and exploring new ideas.

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1 post

E

Emily_Harper
Member since March 2025

Emily Harper is a writer and life coach who loves helping people overcome their fears and step into their best selves. She believes that every challenge is an opportunity for growth. In her free time, she enjoys yoga, journaling, and traveling to new places.

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1 post

S

Sophia_Reynolds
Member since March 2025

Sophia Reynolds loves writing about personal growth and motivation. She believes change helps people grow and become stronger. Through her blogs, she shares simple ways to handle life's challenges and move forward with confidence. In her free time, she enjoys reading, traveling, and spending time in nature.

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1 post

J

jane_smith
Member since March 2025

jane smith is a passionate writer and lifelong learner who believes that change is the key to personal and professional growth. With a background in psychology and self-improvement, he shares insights on overcoming challenges, adapting to new experiences, and finding strength in uncertainty. Through his blog, Albert inspires readers to ...

[View Posts](#)

1 post

12»

4.4. All Blogs – Details of Blogs

[DIY Blog](#) [Posts](#) [Bloggers](#) [Login](#) [Register](#)

Blog Posts

Sort by

Latest

Most Popular

Most Commented

RESILIENCE

Source Back and Come Out Stronger

Building Resilience: Bouncing Back from Challenges
By Daniel_Carter | March 24, 2025

Life is full of ups and downs, but our ability to bounce back from setbacks defines our success. Resilience is not about avoiding challenges—it's about facing them with courage and ...

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OVERCOMING FEAR

Overcoming Fear: Taking the First Step Blog Content:
By Emily_Harper | March 24, 2025

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POSITIVE MINDSET

The Power of a Positive Mindset
By Sophia_Reynolds | March 24, 2025

Life is full of ups and downs, and sometimes, things don't go as planned. But the way we think about challenges makes a big difference. A positive mindset helps us ...

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WHY BLOGGING MATTERS

The Power of Writing: Why Blogging Matters
By jane_smith | March 24, 2025

In today's digital world, blogging has become more than just an online journal. It's a powerful tool for sharing ideas, educating audiences, and building personal or professional brands. Whether you're ...

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EMBRACING CHANGE

Embracing Change: A Journey of Growth
By Albert_Jacob | March 24, 2025

Change is inevitable, yet many of us resist it. However, embracing change can lead to immense personal and professional growth. Whether it's a new job, a relocation, or a shift ...


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4.5 Search - Filtered posts by keyword.

[DIY Blog](#) [Posts](#) [Bloggers](#) [Login](#) [Register](#)

Search Results

Found 1 result for "jane_smith"



The Power of Writing: Why Blogging Matters
By [jane_smith](#) | March 24, 2025

In today's digital world, blogging has become more than just an online journal. It's a powerful tool for sharing ideas, educating audiences, and building personal or professional brands. Whether you're ...

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4.6 Blog - Post content with comments and reaction

[DIY Blog](#) [Posts](#) [Bloggers](#) [Aisling_Michael](#)

Building Resilience: Bouncing Back from Challenges

by [Daniel_Carter](#) | March 24, 2025



by [Daniel_Carter](#) | March 24, 2025

[1 Comments](#) [4 hours, 2 minutes ago](#)

Life is full of ups and downs, but our ability to bounce back from setbacks defines our success. Resilience is not about avoiding challenges—it's about facing them with courage and learning from them.

One of the best ways to build resilience is by developing a problem-solving mindset. Instead of focusing on what went wrong, we should ask ourselves, "How can I move forward?" Every challenge we overcome makes us stronger and more prepared for the future.

Another key to resilience is self-care. When we take care of our physical and mental well-being, we can handle stress more effectively. Simple habits like exercising, getting enough rest, and practicing mindfulness can help us stay balanced.

Most importantly, resilience is built through experience. The more challenges we face, the better we become at handling them. With time, we learn that setbacks are not the end—they are just part of the journey.

No matter how difficult things may seem, remember that you have the strength to rise again. Keep pushing forward, and every challenge will become a stepping stone toward a brighter future.

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Comments (1)

[Post Comment](#)

[Daniel_Carter](#) [4 hours, 2 minutes ago](#)

It was a good blog

4. TECHNOLOGIES USED

- **Backend: Django**
- **Frontend: HTML, CSS, Bootstrap**
- **Database: SQLite**
- **AI Assistance: Cursor AI**

6. CHALLENGES & LEARNINGS

Challenges

1. Image Upload Handling

- Faced difficulties serving media files in development mode.
- Solution: Configured MEDIA_URL and MEDIA_ROOT in settings.py.

2. User Authentication Restrictions

- Ensuring only authors can edit or delete posts.
- Solution: Implemented LoginRequiredMixin and custom permission checks.

3. AI-Generated Code Adjustments

- Some AI-generated code required manual corrections for logic errors.
- Solution: Verified outputs and customized as needed.

Leanings

- Gained deeper insight into Django's **authentication system** and **model relationships**.
- Improved frontend skills with **Bootstrap and JavaScript**.
- Learned **how to integrate AI into development workflows** for efficiency.
- Understood best practices for **handling file uploads and serving media** in Django.

7. CONCLUSION

The **DIY Django Mini Blog** successfully incorporates all **required and custom features**, leveraging Django for backend operations and Bootstrap for frontend styling. Cursor AI significantly aided in **code generation, debugging, and optimization**, making development faster and more efficient.

This project showcases:

1. **Robust Core Functionality:** Secure authentication, CRUD operations, and Django admin management.
2. **Enhanced User Experience:** Features like tagging, reactions, and search improve usability.
3. **Efficient AI-Assisted Development:** Demonstrates how AI tools can streamline development.

Github link: <https://github.com/AnattMathew/MiniBlog.git>

Pythonanywhere link: <https://anattmathew.pythonanywhere.com/>