GITHUB LINK:

https://github.com/iamsalvin/Blog

Introduction:

This Blog platform is designed to provide a modern, interactive blogging experience with a focus on user engagement and content accessibility. It features a glassmorphism UI design, dark/light mode toggle, PDF download functionality, and audio narration capabilities. The platform ensures efficient content management, seamless user interaction, and a responsive design that works across devices.

Features:

1. User Authentication

- User registration and login
- Profile management with bio and profile picture
- Secure password handling

2. Content Management

- Create, edit, and delete blog posts
- Rich text content editing
- Featured images for posts
- Category system for post organization

3. Interactive Features

- Like functionality for posts
- Comment system with reply capabilities
- Dark/light mode toggle with preference saving

4. Content Accessibility

- PDF download for blog posts
- Audio narration using Google Text-to-Speech (gTTS)
- Responsive design for mobile devices

5. UI/UX Enhancements

- Glassmorphism design for navbar and cards
- Modern, clean interface
- Smooth transitions and animations

Challenges & Solutions:

1. Category Selection

- Challenge: Difficult to select multiple categories with standard dropdown
- Solution:
 - Implemented CheckboxSelectMultiple widget
 - Added custom CSS styling for better visibility
 - Ensured compatibility with dark/light mode
- Result: Intuitive and user-friendly category selection

2. Dark/Light Mode Implementation

- Challenge: Maintaining consistent styling across themes
- Solution:
 - Used CSS variables for theme colors
 - Implemented JavaScript theme toggle
 - Added local storage for theme preference
- Result: Seamless theme switching with persistent user preference

3. PDF Generation

- Challenge: Generating PDFs from HTML content
- Solution:
 - Integrated xhtml2pdf library
 - Created custom PDF templates
 - Added error handling for PDF generation
- Result: Reliable PDF download functionality

4. Audio Narration

- Challenge: Generating and serving audio files
- Solution:
 - Used gTTS for text-to-speech conversion
 - Implemented background processing
 - Added audio file management
- Result: Smooth audio narration experience

5. Responsive Design

• Challenge: Maintaining UI consistency across devices

- Solution:
 - Used Bootstrap grid system
 - Implemented mobile-first design
 - Added custom media queries
- Result: Consistent user experience on all screen sizes

Technical Stack:

- Backend: Django
- Frontend: HTML, CSS, JavaScript
- Database: SQLite (development), PostgreSQL (production)
- Libraries:
 - Bootstrap 5 for UI components
 - Font Awesome for icons
 - xhtml2pdf for PDF generation
 - gTTS for audio narration
 - WhiteNoise for static file serving

Deployment:

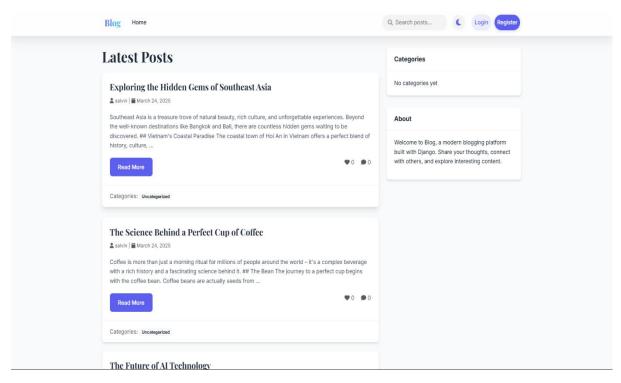
- Platform: Render
- Configuration:
 - Gunicorn for production server
 - PostgreSQL database
 - Environment variables for sensitive data
 - Automated build and deployment process

By implementing these features and solutions, the Blog platform ensures:

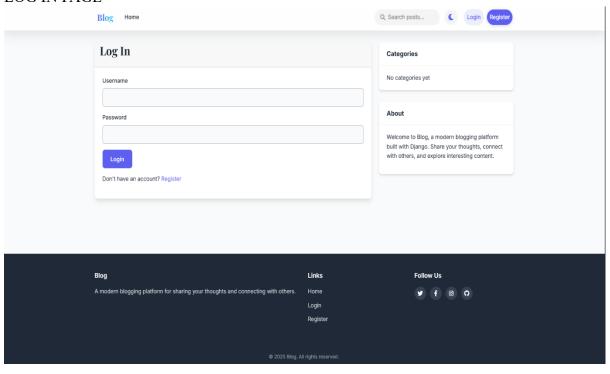
- Efficient content management
- Enhanced user engagement
- Improved content accessibility
- Consistent user experience
- Modern, responsive design

SCREENSHOTS

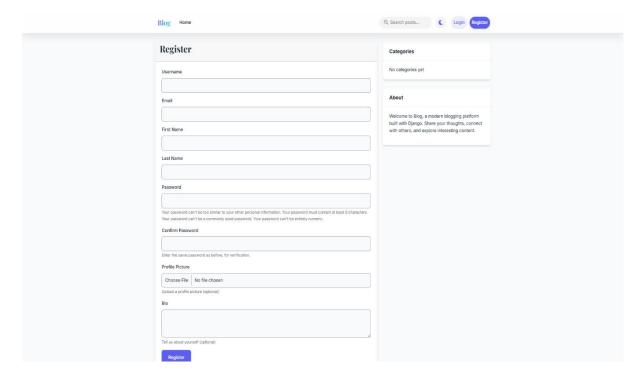
BLOG PAGE



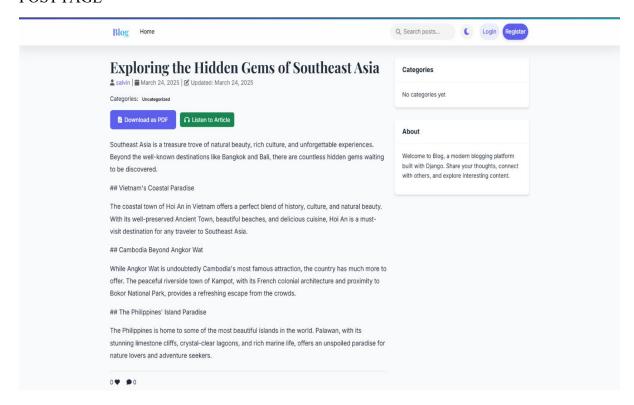
LOG IN PAGE



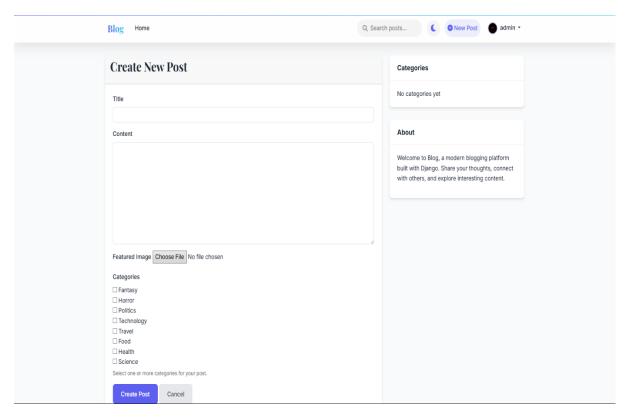
REGISTER PAGE



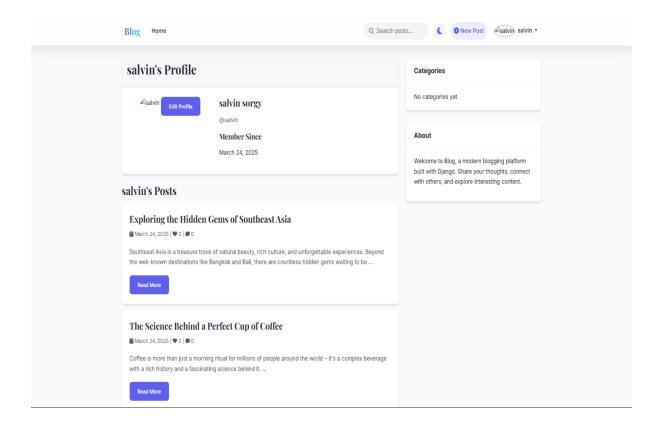
POST PAGE



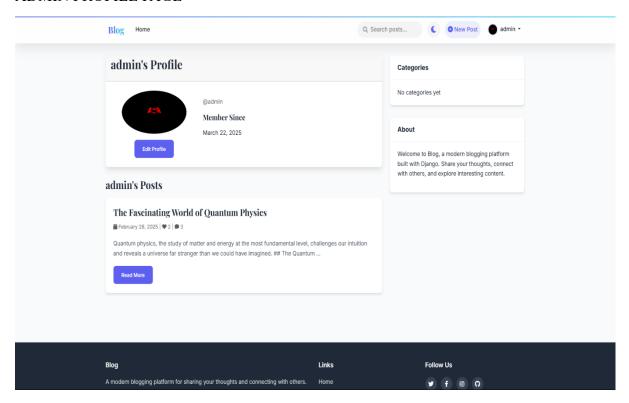
CREATE NEW POST PAGE



USER PROFILE PAGE



ADMIN PROFILE PAGE



EDIT PROFILE PAGE

