Khaled Blog – Full Project Description

Project Overview

Khaled Blog is a full-stack web application that allows users to register, log in, read blog posts, and leave comments. The platform is designed with secure authentication, an admin panel, and modern UI components. Khaled (the admin) has full control over the blog content, while regular users can only interact by reading posts and commenting.

Project Features:

For Regular Users:

- User registration and login with secure password hashing.

- Browse all blog posts with images and metadata (author, date).

- Read full blog posts with content styled using CKEditor.

- Leave comments on posts with Gravatar integration for profile pictures.

Admin Features (Khaled):

- Create new blog posts with images and styled text.

- Edit or delete existing posts.

- Moderate and manage comments.

- Access to admin-only routes protected by a decorator (@admin_only).

Database Structure:

- Users Table: Stores id, name, email, hashed_password.

- Posts Table: Stores id, title, subtitle, date, body, img_url, author_id.

- Comments Table: Stores id, text, author_id, post_id.

- Messages Table: Stores id, name, email, phone, message, date.

- Relationships:

* A User can write multiple Posts.

* A User can write multiple Comments.

* A Post can have multiple Comments.

Security Features:

- Passwords are stored securely using hashing (Werkzeug).

- User sessions managed with Flask-Login.

- Admin-only routes are protected from unauthorized access.

- Form validation and CSRF protection provided by Flask-WTF.

Front-End Design:

- Built with Bootstrap 5 for responsive design.

- Clean Blog template used for modern UI and layout.

- Post headers with background images.

- Comment section styled with avatars and user-friendly formatting.

Back-End Design:

- Flask application structure.

- SQLAlchemy ORM for database models (Users, Posts, Comments, Messages).

- Routes for registration, login, logout, viewing posts, commenting, and admin management.

- CKEditor integration for rich text formatting.

- Authentication handled with Flask-Login.

Additional Notes:

- Khaled is the only admin and has full control over the platform.

- Regular users are limited to commenting and reading posts.

- The project demonstrates best practices in Flask app development.

- All templates are integrated with header and footer includes for consistency.

- CKEditor is used for rich text editing in posts and comments.

- Gravatar is used for user avatars in the comment section.

- Bootstrap 5 ensures the site is mobile-responsive and modern-looking.

Conclusion: Khaled Blog is a comprehensive Flask-based blogging platform, combining robust back-end functionality, secure authentication, and a polished front-end interface. It provides a clear distinction between admin and regular user functionalities, ensuring a secure and userfriendly blogging experience.