**HasanPulse: Social Media Application - Documentation**

This is a **social media application** that allows users to create and manage their profiles, post content, like and comment on posts, and follow/unfollow other users. The application is designed to provide a simple yet interactive experience for users in a social networking environment.

**Features:**

1. **User Registration and Authentication**:
   * Users can register by providing their personal information such as first name, last name, username, email, and password.
   * Passwords are securely hashed using bcrypt.js to ensure user data security.
   * Users can log in with their username and password.
2. **Profile Management**:
   * Users can update their profiles, including details like name, email, profile picture, occupation, and location.
   * Users can upload a profile picture during registration or later via profile update.
3. **Post Creation**:
   * Users can create text-based posts and optionally upload images.
   * The posts are saved with the author's details and can be viewed by others.
4. **Likes and Comments**:
   * Users can like or unlike posts.
   * They can add comments to posts, and these comments are linked to the user who added them.
5. **Follow/Unfollow**:
   * Users can follow other users to see their posts in the feed.
   * They can also unfollow users if they no longer wish to see their posts.
6. **Image Upload**:
   * Users can upload images along with posts. The images are stored on the server and referenced in the posts.

**Technologies Used:**

* **Backend**:
  + Node.js for the server-side logic.
  + Express.js as the web framework for routing and API management.
  + Mongoose for interacting with the MongoDB database, which stores user and post data.
* **Authentication and Security**:
  + bcrypt.js is used for securely hashing user passwords.
  + JWT (JSON Web Tokens) or session-based authentication could be integrated for managing user sessions (not fully implemented here).
* **File Uploads**:
  + Multer middleware is used for handling file uploads such as profile pictures and post images.
* **Database**:
  + MongoDB is used to store user data, posts, comments, and relationships such as followers and following.
* **Image Hosting**:
  + The application uses **Imgur API** to upload and manage images efficiently.

**How It Works:**

1. **User Workflow**:
   * A new user registers, providing their details, and upon successful registration, they can log in using their username and password.
   * After logging in, users can create posts, which may include images, and interact with other users' posts by liking, commenting, or following/unfollowing them.
2. **Post Creation**:
   * Posts can contain text content and optionally an image file.
   * When a post is created, it is saved in the MongoDB database along with the user’s ID, content, image (if any), and creation timestamp.
3. **Like/Comment System**:
   * Posts can be liked or unliked by users, and these interactions are tracked in the post's likes array.
   * Comments are added to posts and saved in the post's comments array, along with the user ID of the commenter.
4. **Follow/Unfollow**:
   * Users can follow others by sending a follow request, which updates their following and follower lists in the database.
   * They can also unfollow users to stop seeing their posts in the feed.

**Live Demo:**

For those who want to see the application in action, here is the **live demo** link:

[Live Demo](https://hasan-pulse.pages.dev/) (https://hasan-pulse.pages.dev)

Feel free to explore the demo to experience the features and functionality of the application!