## **Use Cases for the Blog Web Application**

### **Actors**

* **Unregistered User (Guest):** A visitor who has not signed up.
* **Registered User (Author/Voter):** A user who has signed up and logged in.
* **System:** The application itself.

### **Group 1: User Account Management**

| **ID** | **Use Case Name** | **Actor** | **Description** |
| --- | --- | --- | --- |
| **UC-101** | **Register Account** | Unregistered User | The user provides email, password, and optional phone number to create a new account (populates the users table). |
| **UC-102** | **Log In** | Unregistered User/Registered User | The user provides their registered email and password to gain access to personalized features (e.g., creating posts, voting). |
| **UC-103** | **Log Out** | Registered User | The user terminates their current session. |

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### **Group 2: Post Management (CRUD)**

| **ID** | **Use Case Name** | **Actor** | **Description** |
| --- | --- | --- | --- |
| **UC-201** | **Create New Post** | Registered User | The user writes a title and content for a new post. The system records the post and sets the owner\_id to the user's ID. |
| **UC-202** | **Publish/Unpublish Post** | Registered User | The user toggles the published status of their own post to make it visible or hidden to the public. |
| **UC-203** | **Edit Own Post** | Registered User | The user modifies the title or content of an existing post they own. |
| **UC-204** | **Delete Own Post** | Registered User | The user removes a post they own. The system must also remove any associated votes. |

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### **Group 3: Content Viewing and Discovery**

| **ID** | **Use Case Name** | **Actor** | **Description** |
| --- | --- | --- | --- |
| **UC-301** | **View All Published Posts** | Unregistered User/Registered User | The system displays a list of all posts where the published flag is true. |
| **UC-302** | **View Single Post** | Unregistered User/Registered User | The user clicks on a post to see its full title, content, owner, and current vote count. |
| **UC-303** | **Search Posts by Title** | Unregistered User/Registered User | The user enters a keyword, and the system returns a list of published posts whose title contains the keyword. |
| **UC-304** | **View Own Posts** | Registered User | The user views a filtered list of only the posts they have created. |

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### **Group 4: Interaction (Voting)**

| **ID** | **Use Case Name** | **Actor** | **Description** |
| --- | --- | --- | --- |
| **UC-401** | **Cast a Vote** | Registered User | The user gives a vote to a post. The system checks the votes table to ensure the user has not already voted on this specific post (**one user/one vote constraint**). If they haven't, a new record is created in the votes table. |
| **UC-402** | **Unvote** | Registered User | The user gives a vote to a post. The system checks the votes table to ensure the user unvoted on a post. |
| **UC-403** | **Calculate Total Votes** | System | The system tallies all records in the votes table associated with a specific post\_id to display the total popularity count for that post. |