1. Database Design:

categories:

id (Primary Key)

name

subcategories:

id (Primary Key)

category\_id (Foreign Key referencing categories.id)

name

topics:

id (Primary Key)

subcategory\_id (Foreign Key referencing subcategories.id)

title

content

user\_id (Foreign Key referencing users.id)

created\_at

users:

id (Primary Key)

username

password (hashed)

Other user-related fields as needed

2. User Authentication:

Implement a user authentication system to allow users to register, login, and manage their accounts.

3. Category and Subcategory Management:

Create functionality to add, edit, and delete categories and subcategories. This can be done through an admin panel.

4. Topic Management:

Allow users to create, view, edit, and delete topics within subcategories.

5. Post Management:

Users should be able to reply to topics by creating posts.

6. Frontend Development:

Develop the frontend interface for users to interact with the forum. This includes displaying categories, subcategories, topics, and posts, as well as forms for creating new topics and posts.

7. Access Control:

Implement access control to restrict certain actions (e.g., creating, editing, or deleting topics) to authenticated users or specific user roles.