DJANGO REST API EXERCISE 1

Project: Simple Social Media API

Project Overview:
The project will involve creating a backend for a mini social media application with basic CRUD operations, user authentication, and some additional features to challenge the understanding of DRF.

Core Features to Implement:

1. **User Registration and Authentication**:
   - Implement user registration, login, and logout using DRF's djoser or SimpleJWT for token-based authentication.
   - Include user profile details with fields like name, email, and bio.

2. **Post Creation and Interaction**:
   - Users can create, update, and delete posts. Each post should have fields like title, content, created_at, and updated_at.
   - Add functionality for users to like and unlike posts.

3. **Comments**:
   - Allow users to comment on posts.
   - Implement CRUD operations for comments.
   - Add nested serializers to handle comments associated with posts.

4. **Followers/Following**:
   - Users should be able to follow or unfollow other users.
   - Implement a view to retrieve a list of followers and following for a specific user.

5. **Search Functionality**:
   - Add basic search functionality to filter posts based on keywords, hashtags, or user names.

6. **Pagination, Filtering, and Ordering**:

    o   Use DRF's built-in pagination and filtering to allow users to view posts by latest or most liked.

    o   Implement pagination for user lists, posts, and comments.

Additional Technical Concepts to Focus On:

- Use class-based views (ListAPIView, RetrieveAPIView, etc.) for modular and reusable code.

- Create custom permissions for restricted access (e.g., only allowing post owners to edit or delete).

- Optimize performance by limiting database queries.