



UE21CS352B: Object Oriented Analysis & Design
using Java

Title: Social Media Platform

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Problem Statement:

The Social Media Platform System is meticulously designed to seamlessly facilitate user connections, content sharing, and diverse interactions. It boasts a robust set of features encapsulated within various entities, each representing a fundamental aspect of the platform's functionality.

Users, at the system's core, interact through a spectrum of operations that span account management (creation and deletion), authentication processes (secure login/logout), and social engagement (follow/unfollow, like, comment). Furthermore, users can explore and engage with posts through tailored functionalities like displaying their liked or commented content and conducting searches.

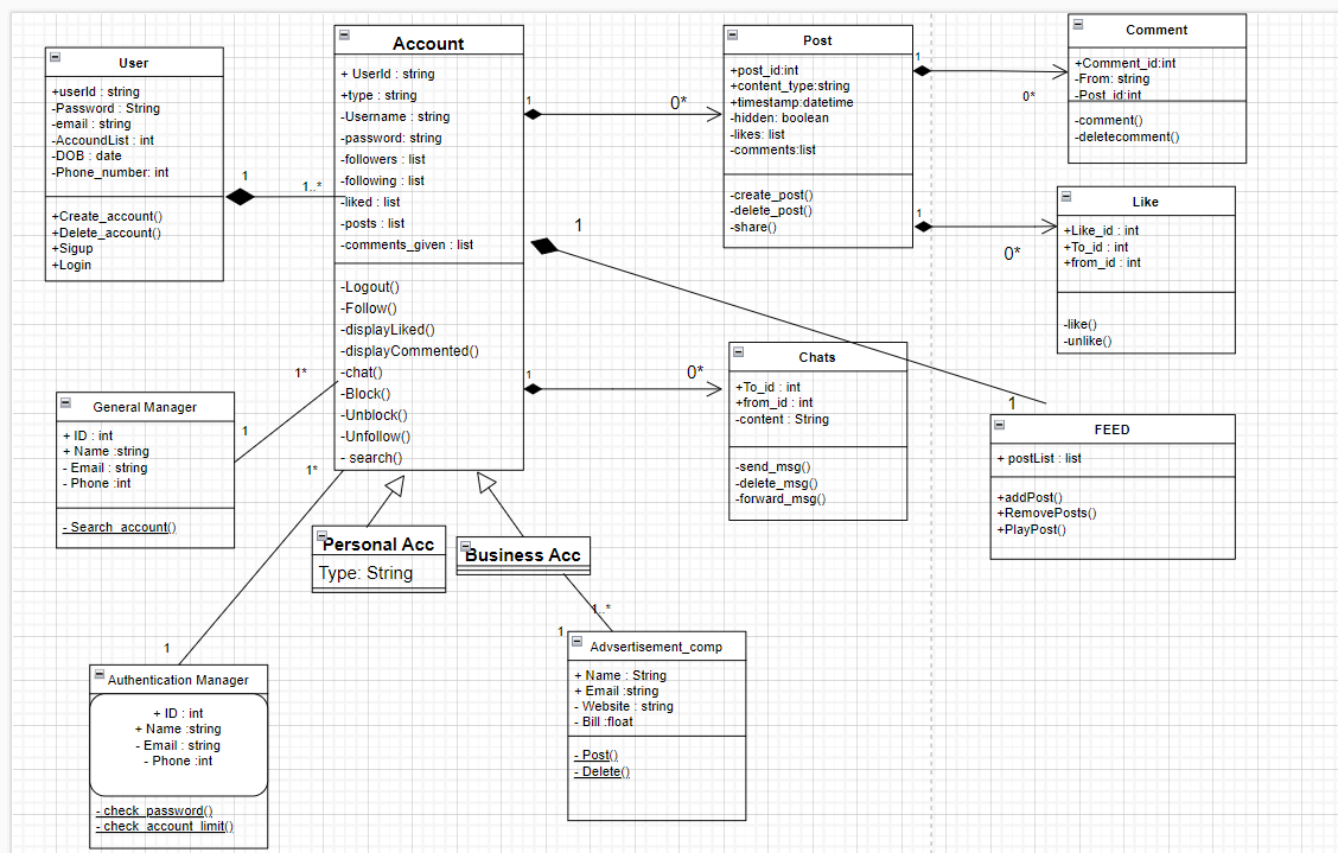
Content creation is a key focus, managed by the Post class, which orchestrates operations for creating, deleting, and hiding posts. Messaging capabilities are seamlessly integrated into the system through the Chats class, enabling users to send, delete, and forward messages.

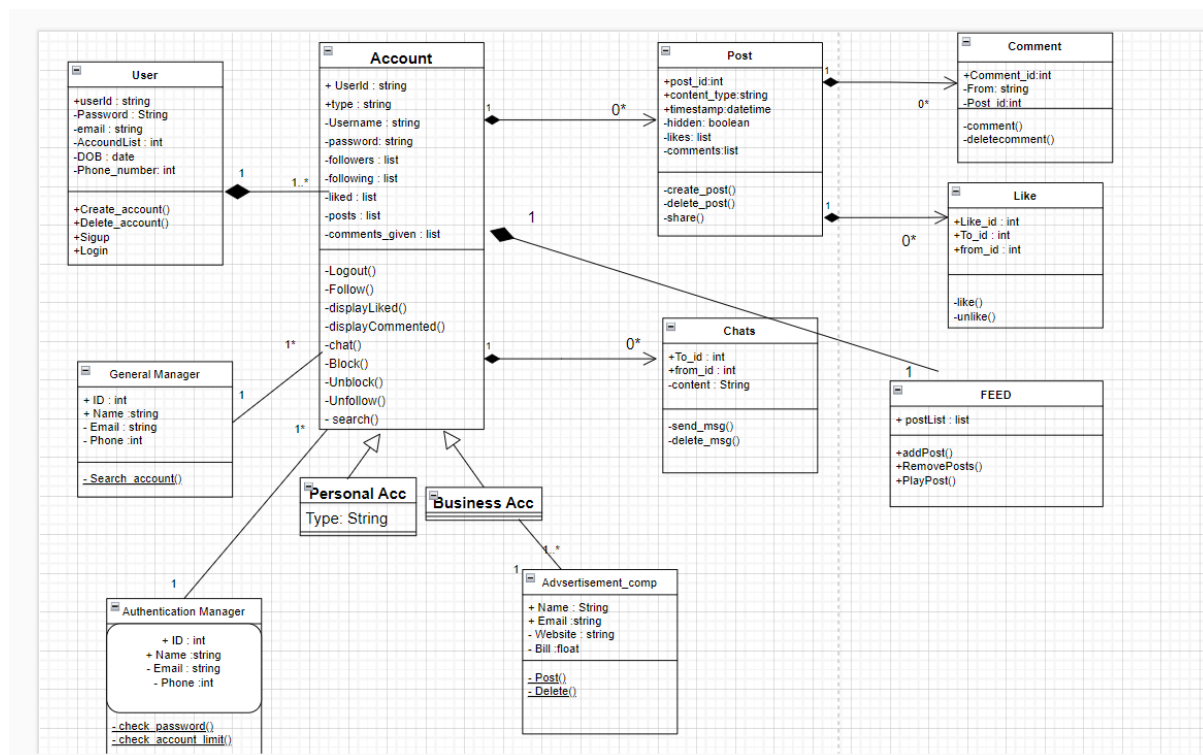
In the realm of user interactions with posts, the system accommodates likes and comments, each handled by dedicated classes. Additionally, the Advertisement Company entity facilitates the posting of advertisements, adding a layer of diverse content to the user experience.

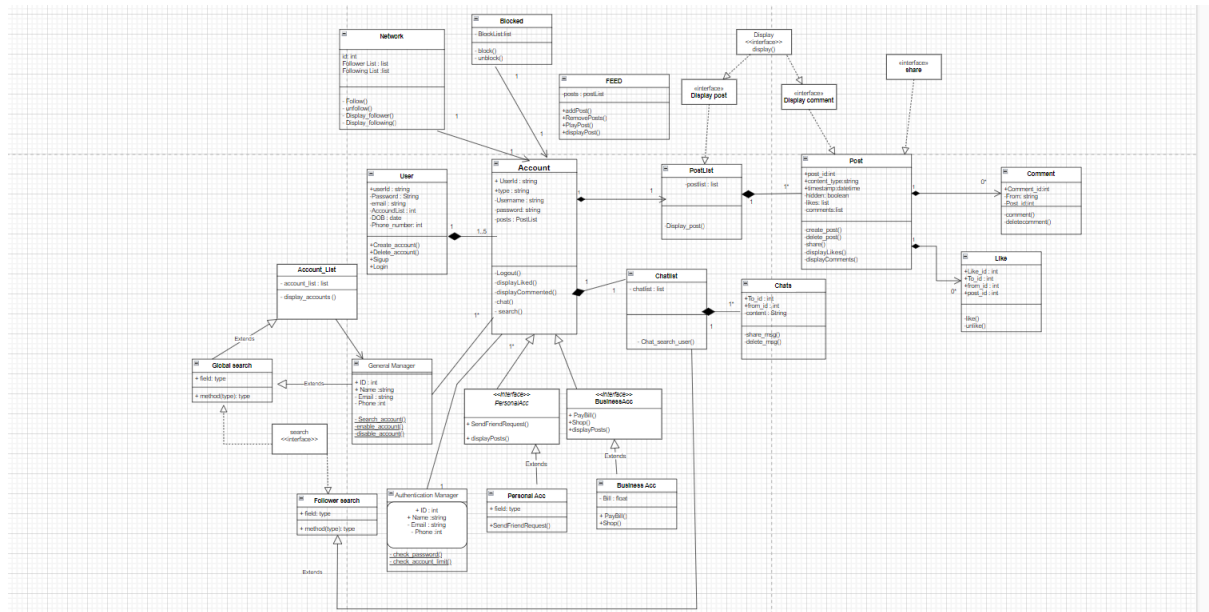
At the helm of user interactions lies the General Manager (GM) class, empowering users with search functionalities, enhancing the overall discoverability within the platform.

MODELS:

Class Diagram:







BRAINSTORMING BELOW:

Social media platform

CLASSES:

1. User
2. Account
 - a. Personal
 - b. Business
3. Post
4. Comment
5. Likes
6. Chat message
7. AuthenticationManager
8. Advertisement Company
9. Feed

Class	Attributes	Methods
User	Password, Email, AccountList, DOB, phone	CreateAccount DeleteAccount Signup Login
Account	UserID, type, Username, password followers, following, liked_posts, comments_given	Logout Follow display_liked() display_commented() chat Block Unblock Unfollow search()
Chats	To ,from, chat_id, content	send_message() del_message() forward_message()
Likes	Like_id, to ,from	like() unlike()
comment	commentID, from, postId	comment() delete_comment()
post	post_id, content_type, time_stamp, likes[list], comments[], h	createpost() deletePost()

	idden	share()
Authentication Manager	id,name,email,phone	check_password() check_account_limit()
GM	id,name,email,phone	control_account()
Advertisement_comp	name,email,website,bill,	post() delete()

Actors:

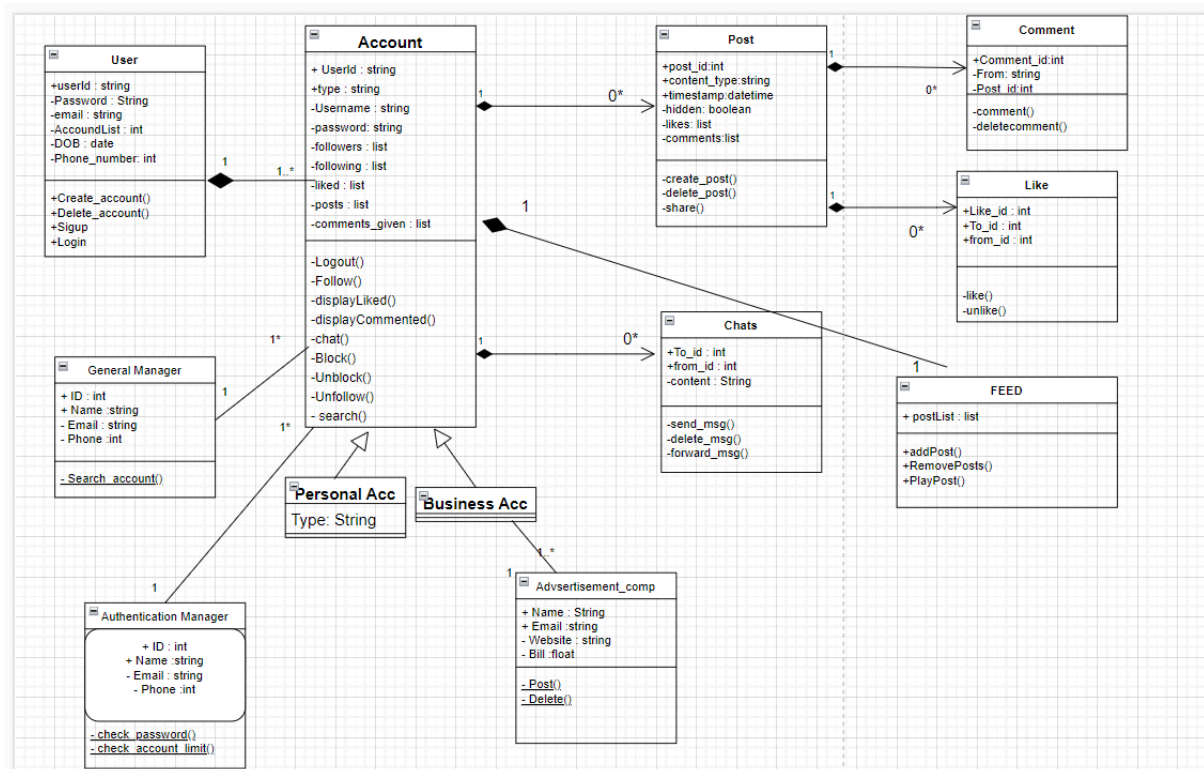
1. User (Primary actor)
2. AuthenticationManager(Secondary actor)
3. Advertisement Company (Primary actor)
4. General Manager (Secondary actor)

Use Cases:

1. Post
2. Like
3. Comment
4. Share
5. Chat
6. Create Polls
7. Vote for Polls
8. Search
 - 1.Search posts(using hashtags,title)
 2. Search user
9. Follow/Unfollow
10. Block
11. Report account
12. Login
13. Sign up
14. Create account
15. Notifications
16. Delete account
17. Delete post
18. Advertisement Post
19. Delete Advertisement Post

****Synopsis: Social Media Platform System****

The Social Media Platform System is designed to enable users to connect, share content, and engage in various interactions. The system includes a comprehensive set of classes to represent core entities such as User, Account, Post, Authentication Manager, Advertisement Company, Likes, Comments, and Chats. The User class encapsulates essential attributes like UserID, username, and user-specific lists. Operations like CreateAccount, DeleteAccount, Signup, Login, Logout, Follow, Unfollow, Block, Unblock, display_liked, display_commented, and search define user interactions. The Post class manages content creation with operations like createPost, deletePost, and hide_post. The Chats class facilitates messaging functionality with send_message, del_message, and forward_message operations. The Likes and Comments classes handle user interactions with posts. The Authentication Manager ensures secure login processes. The Advertisement Company class allows entities to post advertisements. The GM (General Manager) class supports user search functionalities. With this system, users can perform actions like creating and deleting accounts, posting content, engaging with others through likes and comments, and managing their interactions. The class diagram would depict these classes and their relationships, offering a visual representation of the system's structure and functionalities.



Changes in class diagram:

- Creator class - Social media platform
- Split account class -
 - a. Account
 - b. Followers and following list class -network class

- c. Share interface
- d. Display interface - Inherit by display posts and display comments
- e. Separate class for block unblock
- f. Separate interface for searching
- g. Add a layer of abstraction between account class and personal and business accounts
- h. Check for coupling especially account
 - l. Search interface (3 types - random search,follower search,chat search)
 - j) Chat list (list of followers with whom chatted,implement chat search)
 - k) Account type (ISP) (personal and business is children of account)
 - > Interface for Personal account (create account,
 - > Interface for Business (Bill payment for posting(ad),creating

account)

l) Postlist (Class (datatype)) : att->> list of Posts
method-> Display Post()

m) Network class : att: Followers list,following list,follow(),unfollow(),display()
(Implementation of display interface)

n) Interface for general manager:att->Account list search,
methods-> enable disable(),permanent removal().

