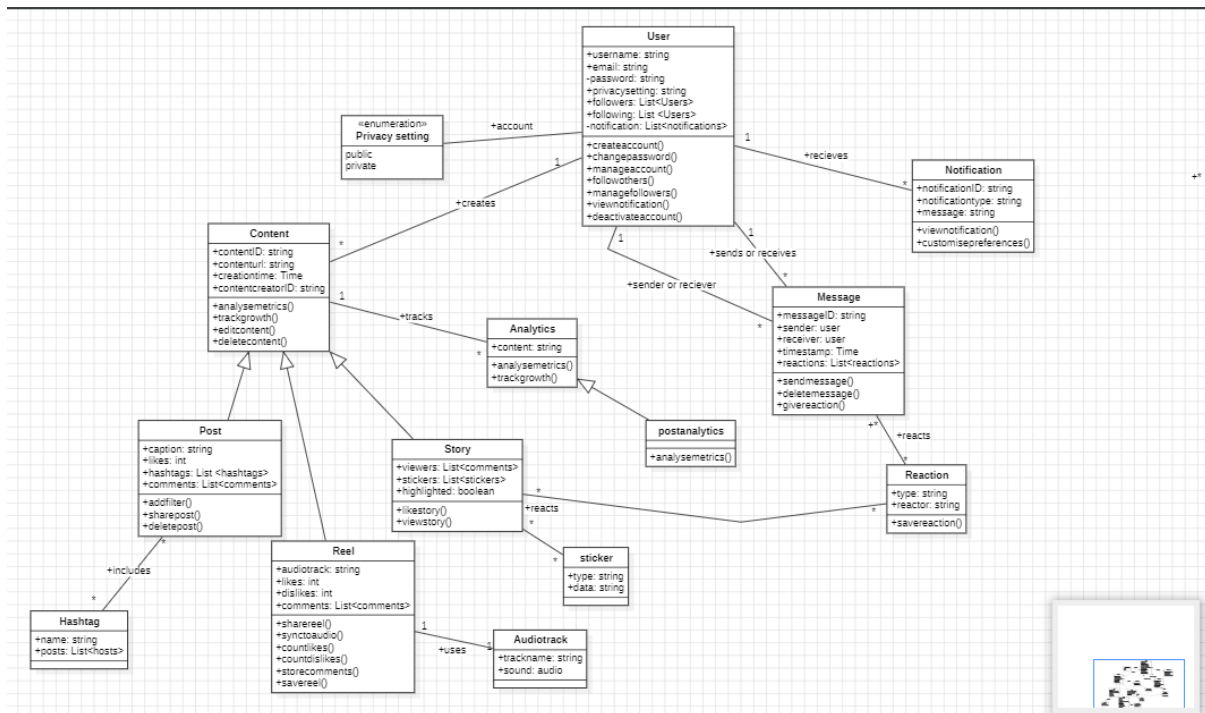


## OOAD LAB – 2

### UML Class diagram for social media platform.

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#### Description:

The UML diagram represents the design of a social media platform aimed at providing a seamless and visually captivating user experience. At its core, the system revolves around **Users** who can create accounts with attributes like username, email, password, bio, and privacy settings (public or private). Users can follow or be followed by others, creating a mutual connection. They can manage their accounts by changing passwords, deactivating accounts, and managing followers. Users also receive **Notifications** about activities such as comments, likes, or follows, which they can customize and view. The platform supports **Messaging**, allowing users to send and receive messages with attributes like message ID, sender, receiver, timestamp, and reactions. Messages can include various types of reactions, such as likes or emojis.

The content creation system is built around the abstract **Content** class, which defines common attributes (content ID, URL, creation time, and creator ID) and behaviors (editing, deleting, and analyzing metrics) for specialized types like **Posts**, **Reels**, and **Stories**. **Posts** can include captions, hashtags, likes, and comments, with features like filters for visual enhancements and sharing options. **Stories** are ephemeral content that can be enhanced with stickers, marked as highlights, and viewed or liked by followers. **Reels** are short-form videos linked to audio tracks, offering features like syncing visuals with audio, counting likes, and saving reels. Additionally, **Hashtags** provide content categorization and discovery, while **AudioTracks** enhance reels by adding sound elements.

The platform empowers users with **Analytics**, offering insights into key metrics like reach, engagement rate, and impressions. These analytics help users track their performance and growth across different content types. Personalization features such as filters, stickers, and highlights enrich the user experience, while reactions foster engagement. Overall, the system is designed to be scalable, user-friendly, and engaging, combining diverse content types, analytics, and communication tools to create a robust social media platform.