

## Problem 1. Design database schema for Instagram.

**Solution:** Instagram is a photo sharing social network in which a user can share photos, videos. The user can follow other users, hashtags, etc.

Functional requirements:

- Users should be able to upload posts such as photos, videos, etc.
- Users should be able to follow other users.
- Users should be able to post comments.
- Users should be able to follow hashtags.
- Users should be able to like posts.

Design considerations:

- Efficient management of storage is required because users can upload many photos, videos, etc.
- Low latency for various operations is a must.
- System should be reliable.

Schema:

