

Entity relationship diagram



Entity-relationship diagrams (ERD) are essential to modeling databases.

FUNCTIONAL REQUIREMENTS

- 1. Newsfeed generation**
 - a. We can generate new posts by entering fields in the posts table. It will be linked with the user and we can perform a query to find all the friends and followers of that user and show all of them one another's posts. It can be with a POST API to createPost where user, attachment and attachment type can be sent.
- 2. Newsfeed content**
 - a. A post can easily have multiple attachments in this schema. We can store attachments in base64 and fetch them based on the user. Both POST and GET will be used.
- 3. Newsfeed Display**
 - a. We can sort the posts based on likes or time easily while fetching the posts for a user's friends and followers

NON-FUNCTIONAL REQUIREMENTS

- 1. Scalability**
- 2. Fault Tolerance**
- 3. Availability**
- 4. Low Latency**

All our non-functional requirements can be handled by using a cloud service provider like Microsoft Azure, GCP or AWS. We can use geo redundant and locally redundant storage to establish fault tolerance and high availability. We can easily scale our services by buying more storage with a click or setting up new VM instances and they already provide the lowest latency for the price they require. All in all we can meet these requirements with no problem.

