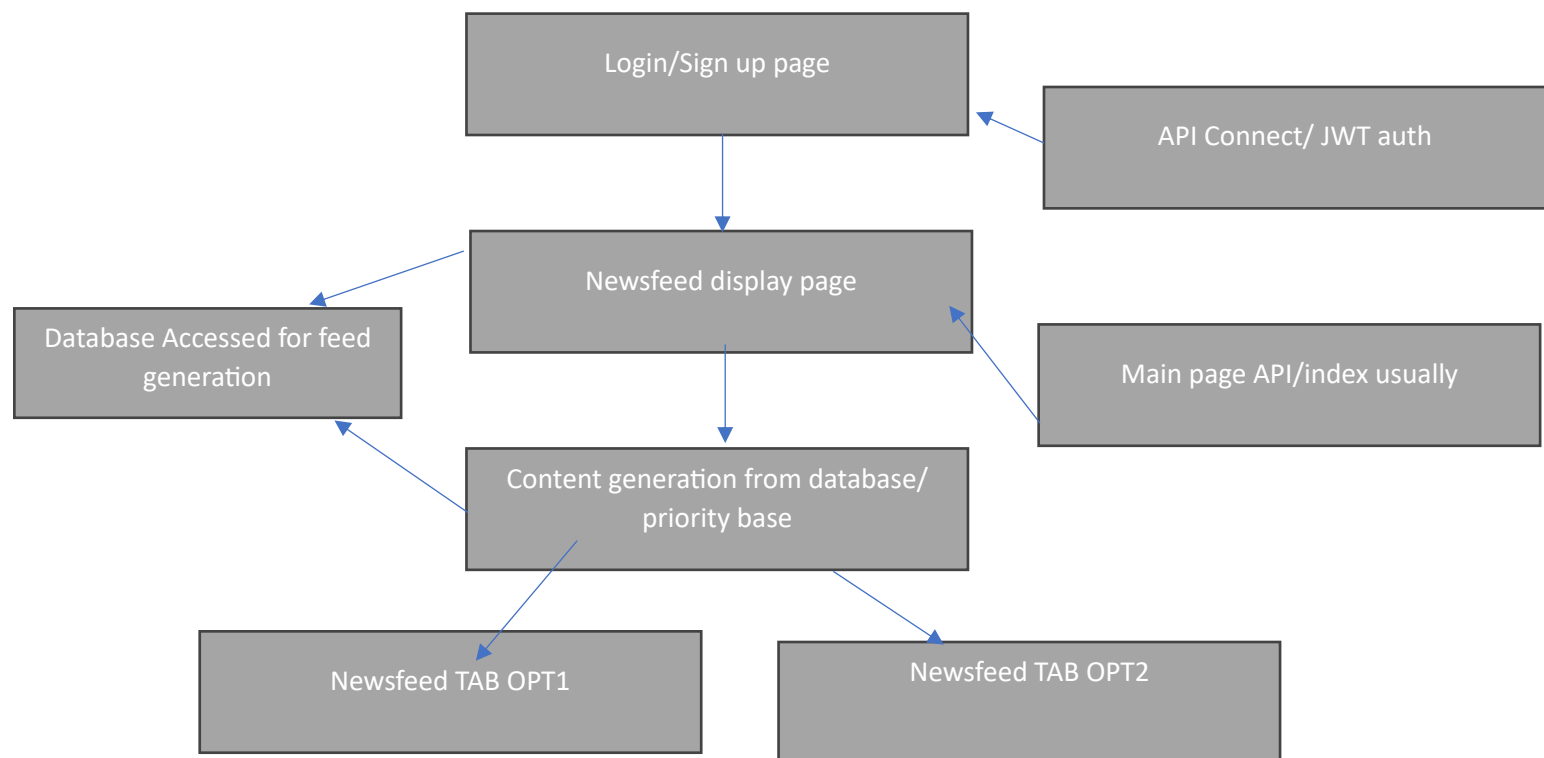


Newsfeed design structure



Design Detail:

1. The newsfeed generation will be based on the user's friends and follower's interests and data for this the API connection to request that data will also be made along with access of the database of the user's data as well as their friend.
2. The page will work on priority base content generation in which time stamps and friends and public profiles will be considered first.
3. If we are using node or next for backend development every page API will be designed and requested.
4. Log in JWT authorization will let user access the system

API design scheme:

API will created for each page, as for this feed news feed APIs may contain different tabs/pages such as videos or group or friends only and a page with public posts as well.

Database Schema:

Database will include the user's information which will contain, friends, followers, following, followed pages, type most watched videos (interests) etc.

The database will also access the user's friend's database which is public or friends only to generate the newsfeed.

How system will generate feed:

1. The system will first access the user's account after authorization
2. After that the database will be accessed for the relevant information
3. The system will generate the content on time priority basis of the posting of the above-mentioned criteria as well as the most viewed content, timestamp will be used for time priority and number of views of a certain post is also considered.
4. If a user has set some other profile on priority base it will also be considered.

Non- functional requirements:

1. Scalability: for scalability we need enough servers and resources to cater the amount of load and user traffic. AWS can be used for server setup. We can use the cloud concept vertical and horizontal scaling as per our need
2. Fault tolerance: The system will be built with resilience for which the system will be tested on multiple scenarios for errors before-hand and also maintenance team should be on board for such task
3. Availability: Enough resources such as servers and storage availability will cater this issue.
4. Latency: this issue is resolved with taking multiple steps. We will use the appropriate programming technique for system to work faster as well as the cloud resources will also be appropriate according to the user traffic