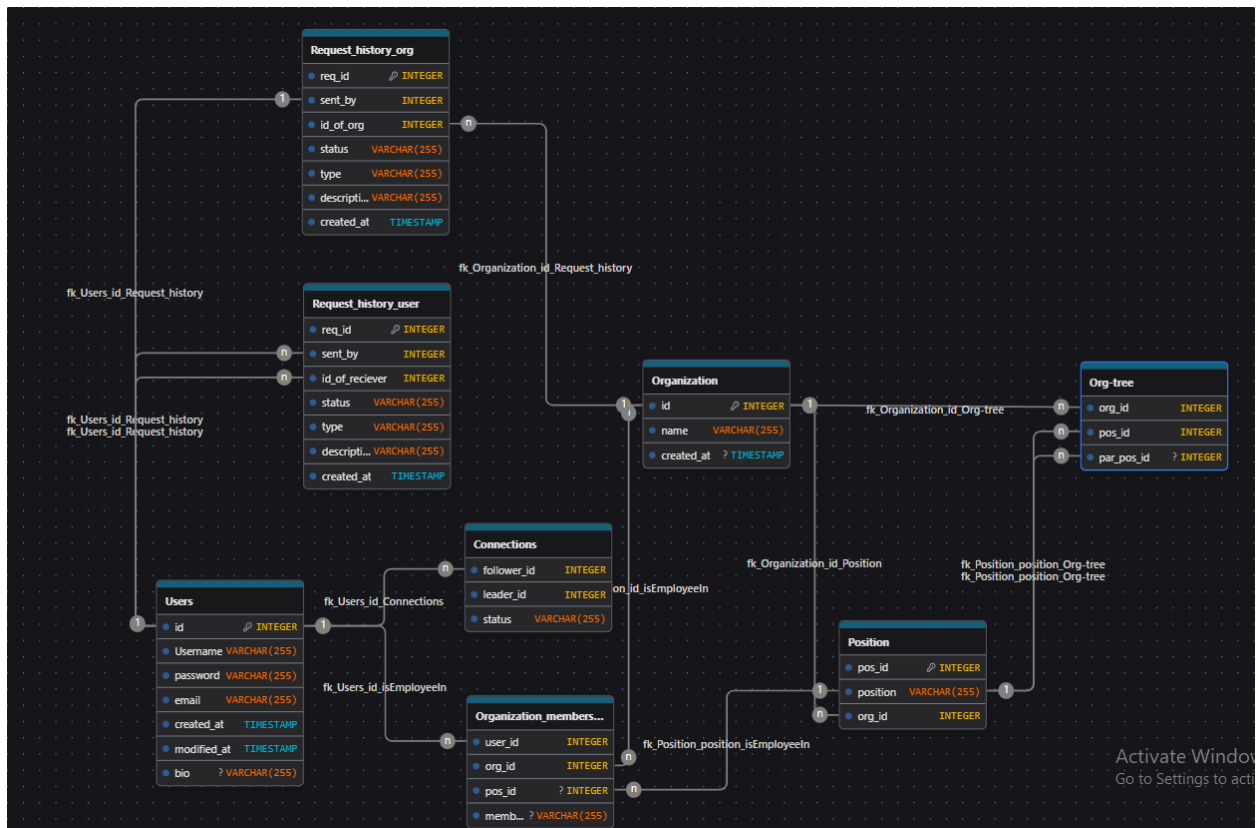


Name: Chauhan Sumit

Data Engineering department

Organization Networking Platform

Design:



[link: <https://www.drawdb.app/editor?shareId=f443c21a6b85bfe67dcb02385b27f946>]

Entities:

User (id, name, password, email)

Organization (id, name)

Organization_membership (user_id, org-id, pos_id, membership) [relationship between user & Organization]

(note: **Organization_membership** entity is inheriting user and organization table, id is id of user, org-id is id of organization in which user is a founder, pos_id)

(assumption: a user can be founder of more than one organization)

In this table we can also add derived attribute is_founder.

Membership means:

- Full-time
- Part-time
- Follower

Key <user_id, org_id> should uniquely identify records

Reset function should be handled by backend so as here we will not including reset related table

Here we need to make another table POSITION that contains,

Position: (pos_id, pos, org-id, no_of_users)

We can make another attribute isVacant which can be derived from no_of_users

Though no_of_users can be derived from **Organization_membership** (it can be thought of as derived key)

Key: <id, org-id> must be unique across this table as a user don't have multiple roles in same organization in both Position and isEmployeeIn table

We can identify the founders of the organization using this table with POSITION as Founder.

Org-tree: (org-id, POSITION, Parent POSITION)

(in this table POSITION = founder has parent POSITION as NULL)

Org-tree is dependent on organization, so it is weak entity

Connections & membership: (id, type_of_reciever, id_of_reciever, type_of_connection)

Type_of_reciever can be

- User
- Organization

Id_of_reciever is the id of User or Organization

Type_of_connetion can be

- **Full-Time Member** (e.g., employee)
- **Part-Time Member** (e.g., contractor)
- **Follower** (non-member, receives updates only)

Request History: (sent_by, type_of_reciever, id_of_reciever, status, req_type, description)

Type_of_reciever is same as User or Organization

Status can be

- Pending
- Approved
- Rejected

Req_type can be

- to join an organization
- To movement within an Org Tree
- to creation or modification of positions (if permitted)

Sent_by is user id

For following the SRP (single responsibility principle) we have separated into two tables from Request_History

One for User and one for organization.

Note: for the security purposes we have used VARCHAR instead of TEXT datatype to avoid buffer overflow related attacks