QUERIES FOR STAKEHOLDERS

Key:
^^ Means its data manipulation

1. User
    1. Problems of certain tags & difficulties
    2. Solved & Unsolved problems
        a. Difficult problems not solved
        b. % between problems
    3. Give me repos of certain tag, certain language
    4. Give me blogs of certain tag, certain user & likes of blog
    5. User comparison (premium)
        a. Number of problems solved
        b. Ratings
        c. Difficulty
        d. Tags
    6. Check my profile visits (premium)
    7. List of my groups along with role & date of joining
        a. Group blogs
        b. Other members of group
        c. Write a blog **^^**
    8. Form Group **^^**
    9. List my followers and following
    10. List technical admin, premium admin

2. Group Admin (Specializes User)
    1. Pending Requests
    2. Check user ratings
    3. Members or
    4. Remove, Add **^^**
    5. Blogs
        a. Tags of blogs & Likes
        b. User specific blogs
        c. Date specific blogs

3. Recruiter
    1. List of preferred users
    2. List of recruited users
    3. List of users by
        a. Location
        b. Language
        c. Ratings
        d. Strengths

   4. User comparison
   5. How many problems have been solved by user after a certain date
4. Programming Organization
   1. Number of users from the organization
   2. Contests (Specializing from blog)
      a. Give me contests after a certain date
      b. Likes on contests
      c. Maximum liked contest
   3. Revenue Spent
   4. How many ads have I posted
   5. Percentage Increase in users Vs Revenue Spent

5. Admin
   1. Have various roles (IMP) like general, recruiter, programming organization
   2. Total number of Users
   3. Total number of Recruiters
   4. Total number of Organizations
   5. Revenue generated
   6. Reported accounts
   7. New users joined, New Recruiters joined, New Groups & New Programming Organizations (% of change)
   8. See Premium users, new premiums (% of change)
   9. Premium charge & Add charge

Updates:

- Premium user should specialize user, (Time of subscription, Amount paid)
- Should ads be optional?
- Attributes being copied could be realized as a foreign key (Identity has that foreign key)
- % increase in users as a parameter for Programming Organization
- Are pending requests optional?
- Ads in Programming Organization is covered in ‘Pays To’
- Premium user Pays To Admin (Only to one)
- Added list of preferred and recruited users.
- Do users like blogs & contests? ??
- Grp to user is now a “admin of” relationship
- Premium users also contain an amount pair and subscription time.
- Date of solving and language ?????
- doubts in cardinality (following and followers)
- Identity now consists ID now as of foreign key and its discriminator key would be email + ID
- Group ID, a user can be admin of many groups
- Dates of recruitment by recruiter
- Tags & template is going to be a multivalued attribute
- Problems - primary key is Organization ID + problem ID

- For a strong entity with an ID, primary key is :- role + ID
- Identity shouldn’t be a weak entity
- Admin as an entity ? Should add roles so that each group can have specific pays
- Location Multivalued ??
- A user shouldn’t be able to create two repos with the same name
- Problem ‘solves’ should be derived attribute
- Add rating on registration relationship could be null

Doubts:

Can attributes be repeated?
Cardinalities?
How to maintain constant like subscription fees?
How to denote derived & composite attributes in mysql.

Relationships:

In User

Following people & followers
Codeforces & Leetcode is a relationship from tables of programming organizations
Identity is relationship
Repos is relationship
Blogs is a relationship

In Repo

TodoList is a relationship
Favourites is a relationship

In Programming Organization

Contests are a relationship
Users relationship
Ads is a relationship (Weak entity)

In recruiter:

List of preferred & list of recruited is relationship

Todo:

How to write derived attributes in mysql
How to write composite attributes
Constraints https://www.w3schools.com/sql/sql_constraints.asp
Location attribute type?
Data types: https://www.tutorialspoint.com/mysql/mysql-data-types.htm
https://www.w3schools.com/sql/sql_datatypes.asp
https://github.com/shash42/Online-University-Database/blob/main/definition.sql
https://github.com/nahimilega/Fit.io/blob/master/Project%20Report.pdf
https://github.com/rishi-raj-jain/Friendly-Farmers-101/tree/master/app
Updating table using python script

https://www.tutorialspoint.com/python_data_access/python_mysql_database_connection.htm

ER diagram to relational model
https://www.slideshare.net/ARADHYAYANA/er-diagram-to-relational-schema-mapping

Handling derived attributes
https://stackoverflow.com/questions/14526140/mysql-calculate-derived-attribute
https://www.javaguicodexample.com/erdrelationalmodelnotes.html