Social App Database

Database Purpose: The database will maintain the data required for the application infrastructure and the data generated by users. Its utility is to support the app used by individuals looking to connect and it will not be accessible by any governing authority. The application is a social app which connects users based on certain preferences.

Business Problems Addressed:

- Allow staff and administration to generate reports with actions and information to better inform trends and influence future customer behaviour
- Reduces duplication and redundancy while maintaining and updating data of users and within the app
- Helps maintain a log of matches between specific users, their preferences, their subscription plans to provide services accordingly
- Reuse data for different purposes and perform querying, exploring, and mining to create value from data and to get instant insights from the data to evaluate and perform informed business decisions

Entities & Attributes:

- **User**
  User_ID (PK)
  Name
  Bio
  Location_ID (FK)
  Gender_ID (FK)
  Height
  Home_Town
  Language_ID (FK)
  Religious_Views

- **Match ID**
  User_ID (PK, FK)
  User_ID2 (PK, FK)

- **Gender**
  Gender_ID (PK)

Gender_tag

- **Location**
  Location_ID (PK)
  City
  State
  Country
  User_ID (FK)

- **Subscription Details**
  User_ID (PK, FK)
  Super_likes
  Billing_Date
  Subscription_Plan (PK)

- **Help and Support**
  Safety_Tips
  FAQs
  Terms_and_Conditions
  Contact_details
  User_ID (FK)
  Terms_ID (PK)

- **Media**
  User_ID (PK)
  Media_Type

- **Social**
  User_ID (PK, FK)

- **Instagram**
  Handle (PK)

- **Photo**
  Photo_ID (PK)

- **Music**
  Anthem_ID (PK)
  Social_Email_ID (FK)
  Anthem_Title

- **Spotify**
  Email_ID (PK)

- **Story**
  Story_ID (PK)
  Story_URL
  Story_Duration

- **Preferences**
  User_ID (PK, FK)
  Distance
  Gender
  Age_Range
  Height_Range
  Languages

- **Languages**
  Language_ID (PK)
  Language_Name

- **App Settings**
  User_ID (PK, FK)
  Notification_toggle
  Friends_Viz_toggle

Design Requirements (Credit to Professor Simon Wang):

- Use Crow's Foot Notation
- Specify the primary key fields in each table by specifying PK beside the fields
- Draw a line between the fields of each table to show the relationships between each table. This should be pointed directly to the fields in each table that are used to form the relationship
- Specify which table is on the many side of the relationship by placing a crow's feet symbol next to where the line ends

Design Decisions and Entity-Relations:

- Age will be displayed on the profile, but it is not added as an attribute, instead, it will be derived from the 'dob' attribute using a mathematical formula
- User is the most important entity as it contains all the basic attributes required for a dating profile (Name, age, dob, etc)
- The 'Photos' entity is mandatory, as a user should have AT LEAST one photo.
- A user can link ZERO-MANY photos from instagram, but a photo can belong to ONE AND ONLY ONE USER
- Instagram data will only display the user's handle and photos, the user's entire profile will not be accessible

- Subscription status is used to categorize the users into premium and non-premium buckets, and will decide what features are available to the user (eg. Superlikes) - Free users get 1 Superlike per day, while Premium users get 15 Superlikes per day
- A user can have ZERO-MANY stories, but only from ONE social media profile
- A user has ONE & ONLY ONE help & support, but the help & support can be accessed by many users
- Location is added as an entity to show potential ‘nearby’ matches
- Instagram is added as an entity under ‘Social’ to add photos
- Spotify is added as an entity to display the user's music taste
- App Settings is used as a validation check from the user for the app to access various hardware features of the user’s device
- ‘Matches’ are included to account for user matches
- ‘Home Town’ attribute defines a place where a user is from, not the current location of the user. Therefore, no transitive dependency exists between ‘Home Town’ and 'Location’

Entity Relationship Diagram