Dating App Database

Gabriel Fernando Lozano Echeverry
Department of Engineering
Universidad Distrital Francisco Jose de Caldas
Bogota, Colombia
gflozanoe@udistrital.edu.co

Angel Andres Diaz Vergara
Department of Engineering
Universidad Distrital Francisco Jose de Caldas
Bogota, Colombia
aadiazv@udistrital.edu.co

***Abstract*—This project presents the design and development of a database for a dating application, following a structured 10-step process. Key entities are identified, and relationships between them are established to optimize the application's functionality. The goal is to create an efficient and scalable database.**

I. Introduction

Dating applications have transformed how people connect and form relationships in the digital age. With a growing number of users, these platforms require robust databases to efficiently manage profiles, preferences, and interactions. A well-designed database is crucial for providing a seamless user experience and ensuring data integrity. This paper presents the methodology for developing a database for a dating application, following a structured 10-step process. The goal is to create an efficient and scalable solution that enhances user engagement while facilitating the management of complex relationships and data interactions.

II. Methods

The database design for the dating application follows a structured 10-step process to ensure a coherent framework.

1. Define components: Identify key elements such as users, profiles, and matches.
2. Define entities: Establish essential entities including User, Profile, Message, and Match.
3. Define attributes per entity: Specify attributes like name, age, gender, and preferences for each entity.
4. Define relationships: Determine how entities interact, such as a user having one profile and multiple matches.
5. Define relationship types: Classify relationships, such as one-to-one and many-to-many.
6. First entity-relationship draw: Create an initial ER diagram to visualize entities and their interactions.
7. First many-to-many relationships: Establish relationships, for instance, between users and matches.
8. Second entity-relationship draw: Refine the ER diagram to incorporate feedback and additional relationships.
9. Get data-structure E-R-M: Develop the Entity-Relationship Model (ERM) to outline the structure clearly.
10. Define constraints and properties of data: Specify constraints, such as unique usernames and minimum age requirements, to maintain data integrity.

This methodical approach ensures a comprehensive database that effectively manages user interactions and preferences.

III. Results

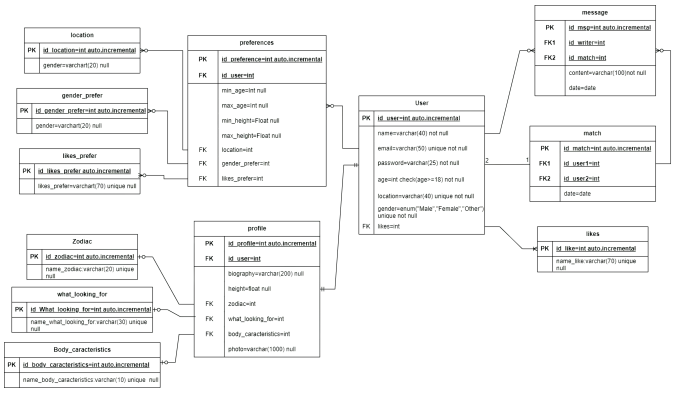

Fig. 1. final database