

Project Dately

Team

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Abstract

We are trying to utilize a database management system in the implementation of a social application. The application would most closely resemble a dating site, with a few additional features to make it more inclusive to people just seeking companionship and/or people to hang out with.

Features

The application should be able to carry out the following functionalities;

1. Enter user data into the database
 - A user should be able to create a profile.
 - A profile would include information such as the user's name, sex, height, sexual preference etc.
2. Process user queries and present results
 - A user should be able to search the database for partners by parsing his own preferences to a query.
 - The application should, in turn, present a list of people (if any) with characteristics as specified by the user's query.
 - A user may select 0 or more of the search results to be a match, and proceed to contact them.
3. Allow users to send messages to each other
 - Once a user finds a match they like, they may send their match a message describing interest.
4. Present suggested matches based on the user's information
 - The application should be able to make simple queries based on a user's profile, and present likely matches.
 - This could be based entirely on sexual preference and height, or something as simple.

Data

Given the nature of this project, data are not publicly available making it necessary to create dummy data. The nature of each data item will determine how it's generated.. Here are some of the fields that are core to the application:

1. Names - find a database of first and last names and randomly match them.
2. Weight and height - randomize around the average for each gender. Attempt to achieve a normal distribution which will add some realism to the data.
3. Education and work history - randomly assign majors, colleges, job titles and companies to users from lists found online.

4. Interests - compile lists of different types of interests including movies, music, books, etc. and randomly choose interests for users from these lists.
5. Photos - compile publicly available photos and randomly assign them to users.

Language

Dately will be implemented with Nodejs which was chosen mainly because both developers are familiar with it. The language's event-driven and non-blocking IO model will be leveraged to build a fast realtime app.

Challenges

1. Collecting data - since data for this project are not publicly available, there's a need to create dummy data, which will present a significant challenge.
2. Complex queries - to offer suggestions to users and allow advanced searching, the app will make use of complex queries whose processing times could get quite large unless they are optimized. Such optimization will be crucial to the functioning of the app.