CS353

DATABASE SYSTEMS

Project Proposal

Project Topic: **Social Network For Check-Ins**
Project Name: **'WhereTo'**
Project TA: Fuat Basık
Link to webpage: ***https://github.com/FaaizHaque/CS353-Group29***

A Project By Group 29

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1. Problem Statement

1.1 Introduction

‘WhereTo?’ will be an application representing a social network system for check-ins. In this application, each user will have their individual profiles where they can check-in to certain venues. Upon creating a profile, the application will ask for the user’s interests about favourite types of foods, social activity preferences, etc. This information will be used to create a recommended list of venues also based on their current location. The list will be further updated based on previous visited venues by both the user and their list of friends. The users will have the ability to leave reviews and ratings on the places they have visited on which all users can leave upvotes and downvotes depending on how helpful they found the review. They can also post statuses which will consist of a check-in and a personalized comment regarding their visit. Users can add each other as friends and can view each other’s profiles detailing the places they have visited. Friends can leave comments, upvotes and downvotes on their other friend’s statuses. ‘WhereTo?’ will have a search feature where users can search for venues and users. The venue search may also be filtered with a specific category, such as restaurants, entertainment, shopping, etc.Upon selecting a venue, the location of the place will be displayed on a map. The basic idea of our project is to have a database that allows users to be able check-in to venues and further interact with each other with certain restrictions.

1.2 User Functions

Our system will allow the users to perform a various amount of functions, both with the system and with other users.

- ★ Create a personalized profile
- ★ Search function for a venue or another user
- ★ Check-in to a venue with an optional status message
- ★ Add friends and be able to view their profiles showing their visited places
- ★ Leave a comment on a friend’s status
- ★ Leave a review on a specific venue
- ★ Rate a place out of 5 stars
- ★ Upvote or downvote a friend’s status or any user’s review
- ★ Listing their personal interests which allows the system to create a recommended list for the users.

1.3 Categories

There will be a list of venues that users can visit. Upon searching for a venue, users can filter their search by selecting a specific type of venue. Furthermore a recommendation list will be added based on a user’s interests that they will provide at the creation of their personalized profiles.

- ★ Food And Drink (restaurants, cafes, bars, diners, etc)
- ★ Educational (museums, libraries, universities, etc)

- ★ Entertainment (cinemas, malls, parks, recreational centers, etc)
- ★ Travel (bus terminals, airports, etc)

2. Database usage

A database will be needed to store user profiles. Users will have a unique username which will represent the primary key of the database. The database will also store the log-in details including their username and password. For each profile we will need to store the information of a user, his/her reviews, check-ins, comments and statuses. Statuses and reviews will have their separate number of positive or negative votes. For example if a review has 3 downvotes and 4 upvotes it's number of votes will be +1. The database will allow users to search for a list of all other users using the system. Users will search using the name of a user, and do not need to specify their exact username. The search can also be filtered specifically to see an individual user or a list of the user's friends. Upon searching for a specific user you will be able to see a list of that user's check-ins, statuses and reviews.

The database will also store a list of venues. The database will allow a user to search for all venues in his/her area and filter this search using a specific type of category. Furthermore, upon selecting a certain venue the database will display a list of the user's friends who have visited that venue.

There will be relationships between the user attributes with themselves and users with the venues including their statuses, reviews, comments, and check-ins.

The database is the fundamental part of our project and the entire system is dependant on it. The database will be encapsulated from the users by hiding the actual structure of it and displaying the relevant information to the user through the user interface.

3. Requirements And Limitations

3.1 Requirements

- ★ Database (Functional): To store the necessary information regarding users and venues, and further allow relevant functions for the users to use and operate the system conveniently. This will be implemented primarily using SQL.
- ★ User Interface (Functional): A web page allowing users to interact with the program. This will be implemented primarily using javascript.
- ★ Server (Non-Functional): Allow for interaction between users and the webpage

3.2 Limitations

- ★ Chatting service: Although it is implementable, we have decided not to include a chatting service to keep the application restricted to social check-ins. Users can not directly message other users but can still communicate through statuses and comments. This will keep our database more tidy as well.
- ★ Authentication Security: Sensitive data like the log-in details of users does not have a guarantee of being protected from unauthorized personnel.

4. E-R Model