Proposal: CityConnection

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https://github.com/Sissytttt/Software-Engineering

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1 Introduction

In an increasingly interconnected world, our experiences in different places shape who we are and how we connect with the world around us. Every street corner, landmark, and restaurant holds memories waiting to be cherished and shared. Within this context, our project CityConnection emerges, offering a revolutionary platform for capturing, sharing, and celebrating the moments that define our adventures. It is not merely a mapping tool or a social network; it is a Social Memories Platform designed to record the way we interact with our cities and each other.

CityConnection aims to empower clients to create personalized city maps enriched with memories. It offers a space where users can highlight places they favor, rekindle memories, and share with other explorers. By blending geographical mapping with social interaction, CityConnection transcends conventional boundaries, inviting users to embark on self-discovery and communal engagement.

2 System Overview

We will use a SQL database management system like SQLite or MySQL to build and manage the database containing location coordinates and feature labeling. For interacting with the SQL database, we will use Python to retrieve, insert, and delete data.

The system is feasible since SQL databases are robust and well-established, ensuring the location management system to handle large datasets. Also, Python's integration with SQL databases enables customizable queries, making it easy to update the dataset.

To build the initial dataset, first, we have to collect a reasonable amount of location data, labeled by their features. Then, use SQL to create tables to store their latitude and longitude coordinates, as well as other attributes related to

location features. Finally, we will use Python's database APIs to establish a connection to the SQL database.

3 Stakeholders and Actors

- Tourists and Residents: CityConnection is a platform for city dwellers seeking unique destinations, such as restaurants, fitness centers, and cultural spots, to stay informed about local attractions, services, and events, enhancing their daily lives.

- Businesses Owners and Event Organizers: CityConnection serves as a dynamic platform, allowing local businesses, such as restaurants, cafes, gyms, and entertainment venues, to list their services, special offers, and events. Through this platform, businesses enhance visibility and connect with potential customers to draw people to their establishments or events.

4 Major Goals and Functionalities

- Search and Filter: Allow users to search for specific categories such as restaurants, gyms, cafes, etc. Advanced filters for refining searches based on criteria like ratings, distance, price range, and opening hours.

- Post Reviews and Ratings: Users can post reviews and ratings for each place for every other user of the software.

- Personalized Map: Users can create personalized city maps with customizable icons and labels, showcasing their favorite locations.

- Post Events and Businesses: Business owners and event organizers can create detailed profiles of their business and events, providing essential information such as location, contact details, business hours, and a brief description of their services or products.

5 Team Background

Our current plan is to try our best to involve everyone in the project implementation from the very back-end to the very front-end. But based on specialization, we may have slightly different job focus. Shiyuan will focus more on the front-end web page, Mei will focus more on the service layer, Ziye will focus more on the access layer, and Shuochen will focus more on the database.

6 Time Slot

We intend to meet on Saturday.

7 Conclusion

CityConnection acts as a platform for personal discovery and community engagement, emphasizing the importance of supporting the diverse offerings within the city. By facilitating a connection between businesses and customers, the platform will benefit both the clients and the local community.