主题Urban:

1. 大众点评！！（想一个名字）北京时间

1.1 Project introduction (ddl 9.19 23:59)

1.2 UML diagram (9.20 12:00)

1.3 UI (9.20 23:59)

1.4 powerpoint present

1.5 Web（if have time）

Proposal Outline

1. Introduction

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2. **Introduction**

**1.1 Background**

Urbanization development at a recent time highly increases choices the people can make when they would like to find a place to have dinner, play games or buy things. With more and more stores opened, people can hardly make a choice among them, especially for those who have difficulties to make a choice. Also, facing several new stores, people can not make a decision based on their quality. To solve this problem, we are going to develop an application called (“name”).

**1.2 Group members**

The application are developed by four people from University of Wisconsin-Madison: Chengpo Yan: [cyan46@wisc.edu](mailto:cyan46@wisc.edu); Bo Li: [bli379@wisc.edu](mailto:bli379@wisc.edu); Zhewei Song: [zsong96@wisc.edu](mailto:zsong96@wisc.edu); Jinming Zhang: jzhang2279@wisc.edu.

1. **Application purpose and function**

**2.1 Application purpose**

To help users know what they want about the surrounding buildings, including restaurants, book stores, hospitals, or the skyscraper. The user can search for one category of the building and the application will recommend a list of places which conform the user needs. Also, for each place the user had met, they can write down evaluation and let others know what this place is like.

**2.2 Application range and potential stakeholders**

For best estimation, the application can cover the whole U.S. Due to the time limit, we will only show one sample as taking the gps location and give recommendation. The user of the application may be people under 40 years old who have interest in discovering new places.

**2.3 Application main function**

**2.3.1 Application function**

**2.3.1.1 Location function**

The application utilizes GPS data to locate current users’ positions. It also stores the location of various buildings in GPS coordinates. Users can put the searching results in the order of distances. They can filter the range of distance to narrow down the result.

**2.3.1.2 Label function**

For each location, the system allocate several labels based on its

functionality, such as restaurants, bookstores, etc. Similar labels or a group of labels where users always visit together are viewed as extensions and they are provided to users under the suggestion tab. Users can search the place they want to go to through typing labels in the search bar. For precise search, direct store name can lead to a more desirable output.

**2.3.1.3 Evaluation System**

Each of the buildings or stores has its own homepage in the

application. It contains store information summary, user ratings, and customer evaluations. Customers can only write evaluation while they are physically inside the store in order to prevent malicious actions.

**2.3.2 UML Diagram**

**2.3.3 Data structure**

**2.3.3.1 Input data**

Input data refers to the data related with different stores or

buildings. It contains names, addresses, imagine of the building, and user’s evaluation data. The program uses SQL to fetch data from the database into the application.

**2.3.3.1 User input data**

User input data contains data from search bar and customer

evaluations. Customer evaluations are stored in a hash table based on the rating and elements in the same hash table are categorized based on the length of the comments.

**2.3.4 Data Algorithm**

**2.3.5 Database structure**