CS 411 Project Stage 2

Team Name	HakunaMatata
Members Names (NetIDs)	Ziyan Wu, Kangtong Mo, Weidong Sun, Lei Tian
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Captain	Lei Tian
Project Title	NoMoreWait

1. Relation schema of your database
    - TableAvailability (TableAvailability_id, timewindow, status, table_id)
    - User (user_id, name, password, email, permission, status, party_size, timestamp)
    - Restaurant (restaurant_id, name, address, latitude, longitude, cuisine, star, is_open, good_for_kids, zipcode, location_id)
    - Location (location id, city, status, country)
    - Table (table id, type, capacity, restaurant_id)
2. Choice of database and languages
    - SQL: postgreSQL
    - NoSQL: Redis
    - Backend: Python
    - Frontend: React.js

3. Sources of your dataRelation schema of your database
    - Link: https://www.yelp.com/dataset
    - Description: The dataset includes following information about restaurants. First, location (city, latitude and longitude and address) and name of restaurant are included. Secondly, it includes opening hours and days of restaurants throughout the week. Also, the dataset includes customer reviews (# of reviews and star of reviews) to indicate popularity of restaurants. Lastly, in order for customers to choose their desired restaurants, the dataset also contains a list of attributes of the restaurants, including whether the restaurant has outdoor dining, whether the restaurant provides take out or delivery, whether the restaurant needs in-advance reservation etc. We could utilize these information to build the reservation platform.

4. Labor division among group members
    - Backend (lei, kangtong, ziyan)
    - data management (ziyan, kangtong)
    - Redis and async workers (lei, kangtong, ziyan, weidong)
    - Frontend (Weidong)
    - Project setup (VM) (lei, kangtong, ziyan, weidong)

5. Project timeline
    - 02/21: Functional Description, ER design, data collection
    - 03/07: Development Plan

        - Relational schema design
        - choose languages
        - prepare and clean data

- 03/14: Setup Dev Environment(backend, frontend, postgre, redis, data load, requirements installation, a live URL of our application)

  - REST API design
  - Full stack (backend, frontend): project structure setup
  - Databases postgreSQL and Redis: install and setup databases
  - Data loading: Load the prepared data into postgreSQL DB according to the designed schemas.
  - Requirements installation: packages installation includes python, react modules, etc.
  - VM setup: a public url of our application

- 04/11: Initial Demo(A link to your initial demo video)

  - Complete all Functional & Non-functional requirements

- 05/14: Final Demo and Report

  - Complete the advanced functional requirement