**Group 23 – Database Project – Fall 2016**

Project Proposal Summary:

We will implement a consumer oriented application to assist in finding restaurants. Users will be able to find restaurants based on preferences, closeness, price, rating, etc.

* What are the main functions that the web-based user interface should provide?
  + Help users find food
    - Keyword query
    - Recommendations
  + Allow restaurants get feedback
* How do the different functions work together?
  + The restaurant feedback is correlated to user preferences. Which is used to give better recommendations.
* Which data are needed to support the functions identified before?
  + See DB Schema
* Which public domain and/or proprietary software is needed to perform the task? (The database system used must be CISE Oracle.)
  + Yelp Api for restaurant data
  + Possibly Google Api for distance calculation.
  + Javascript, HTML5, CSS, SQL

Potential Queries:

* Food near me that is open
  + First it would find the restaurant that are close to the users location
  + Then it would filter out restaurants that are not open, and give the restaurant id
  + Finally, it returns the restaurants that correspond to the returned restaurant ids, starting with first 10 closest.
* Best food for certain cuisine
  + Filter query based on cuisine type.
  + Display order based on rating
* Keyword query
  + Query Names/Descriptions containing user keywords
* Recommendation query new restaurants
  + Highest rated restaurants, that match cuisine types for the Users highest rated restaurants
* Best food for certain price by venue type
  + Highest rated, based on user desired price range and venue type
  + Ex. Less then $$$ Sports Bar.
* Provide a ranking of restaurants based on how often a user checks into a restaurant and the average of the ratings they provide
  + If the user goes to a particular restaurant a lot, and they rank it highly, then they like it.

Potential DB Schema:

Users:

username – pk

password

fname

lname

birthday

Restaurants:

Internal\_id - pk

Name

Location

phone\_number

avg\_rating

cuisine

restaurant\_url

restaurant\_desc\_blurb

price

venue\_type

Reviews:

Internal\_id - pk

restaurant\_id – fk

rating

usr\_checkin

comment

username – fk

timestamp

Hours:

Internal\_id - pk

restaurant\_id - fk

day

open

close