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GA Data Science Fall 2016

Barquest
“Gotta have
Good Time!”



Bar Hopping : we're doing it “wrong!”



Expectation!

Reality...

❖ Bar hopping Pattern circa mid-late 2010s:

- ❖ Meet at a Dive bar, need to go to a nicer place. First we start scrolling reviews. *Too many bars, such little time!*
 - ❖ We found a cool place! After 10 minutes in Uber we are there,
 - ❖ This place is closing in 15 minutes, last call! Start scrolling reviews again for next place,
 - ❖ Uber ride again, getting sleepy...
 - ❖ Heading home, “No More Bar-hops, Guys” ... until next Friday night i.e.
- ❖ Psst: Studies show that Alcohol Consumption adversely affects your ability to read Small Text on Smartphones

What we need for an Awesome Hop?

Easy Recommendations

- ❖ Small Description, may be a photo,
- ❖ A short walk or ride takes us there
- ❖ Is Open when we get there
- ❖ Quick ye/neigh to select or skip a Recommendation

Smart Recommendations

That learn automatically - we deserve it!

- ❖ Happening Neighborhoods
- ❖ I feel like dancing, may be karaoke, maybe Both!
- ❖ We are ordering a Pizza over at the Bar, alright
- ❖ We don't do lines, give me some place only locals go to

Come on now, there's no App that recommends you like this...

Bar-Quest

“Let AI Guide thy Libationary Souls”

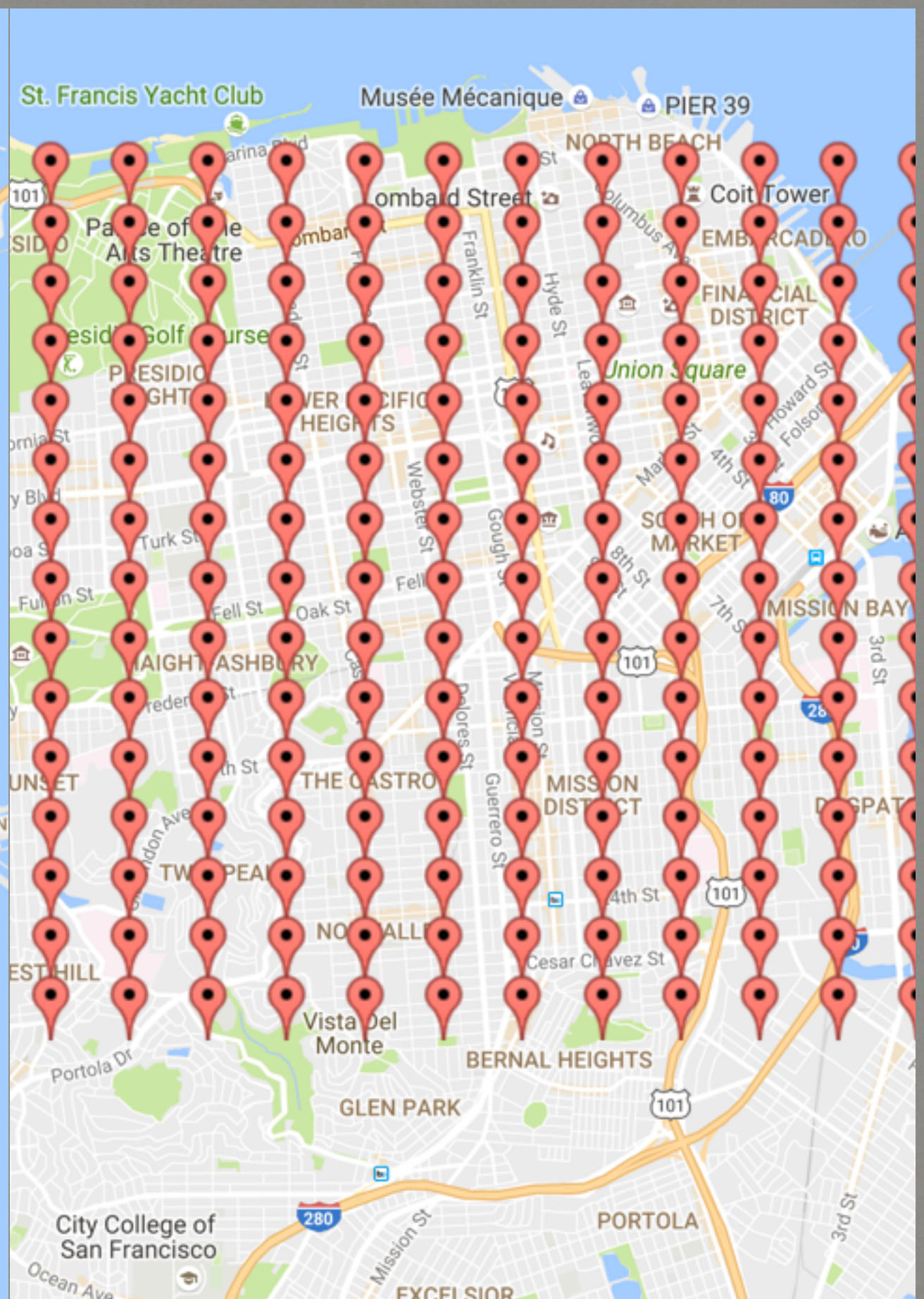
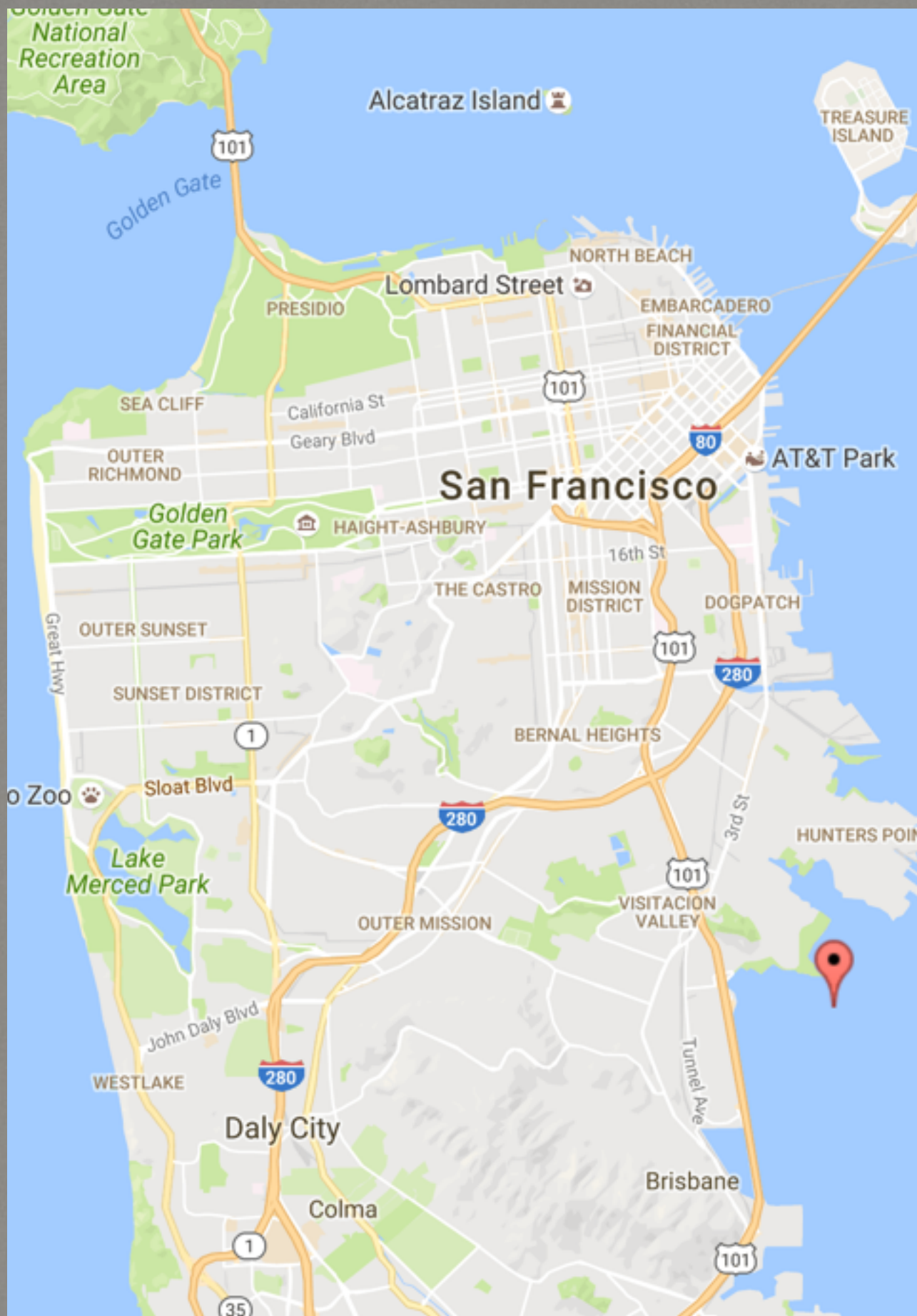


Proposed UI Wireframe



Data Scraping

- ❖ Python Wrapper exists for fetching Yelp data
- ❖ JSON translation and Data-framing
- ❖ Nested Loop approach to build master data-frame
 - ❖ *First pass* divides City Area into squares
 - ❖ Fetch 1000 yelp entries from each square
 - ❖ *Second pass*, fetch data (address, timings) from 20 entries at a time
 - ❖ Append data to the data-frame
- ❖ 3.x the latest API, however wrapper pointed at 2.x
- ❖ Adapted parsing to 3.x for better data quality



Data Cleaning and Exploration

Yelp Categories

- ❖ Dealing with Yelp Dirty Data:
 - ❖ Missing Address
 - ❖ Missing Open Timings
 - ❖ Contact Information
- ❖ Yelp Categories are complete yet not comprehensive
 - ❖ e.g. a place listed as Wine Bar but not a Bar

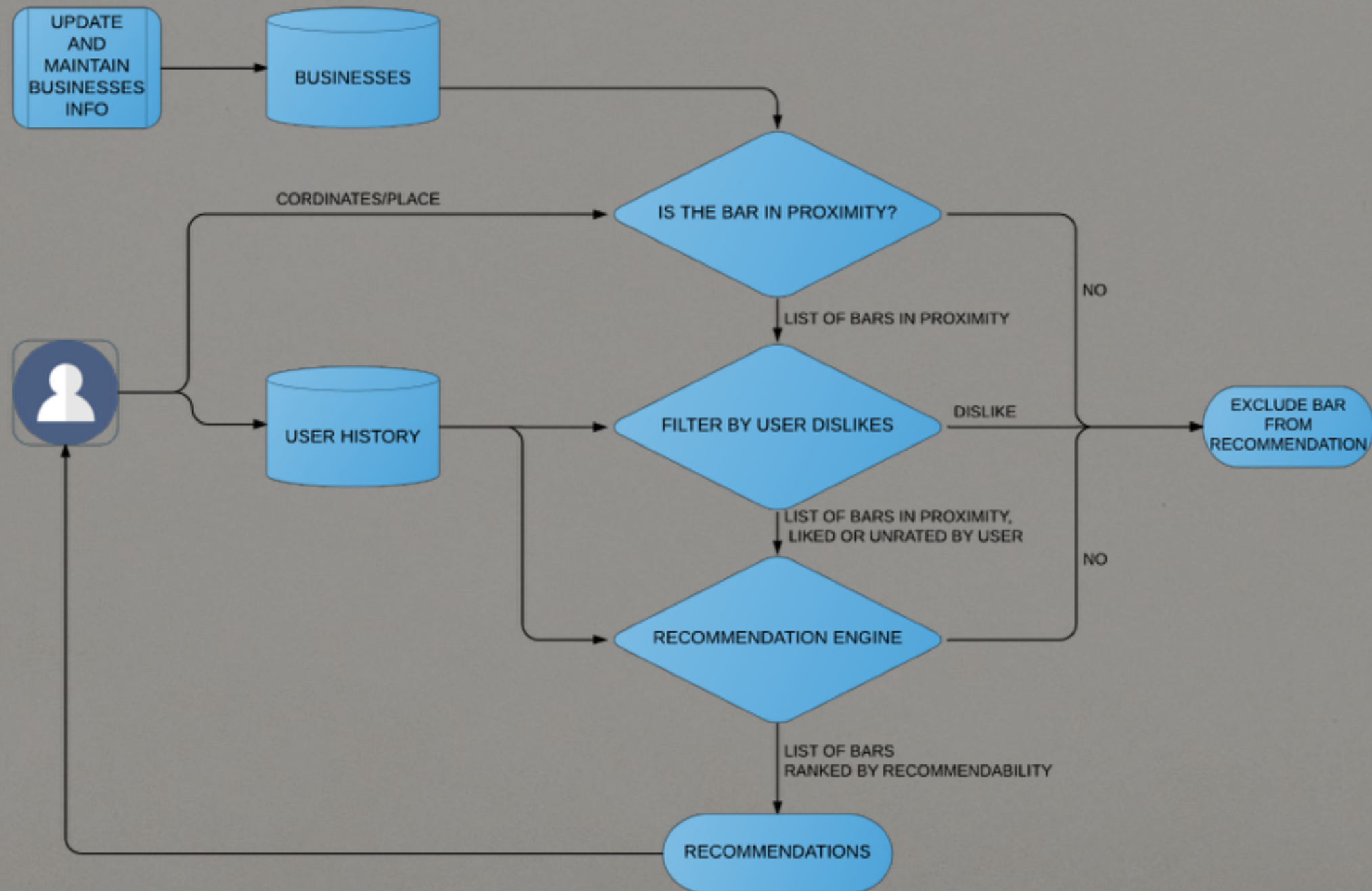
- Nightlife (nightlife)
 - Adult Entertainment (adultentertainment)
 - Bar Crawl (barcrawl)
 - Bars (bars)
 - Airport Lounges (airportlounges)
 - Beer Bar (beerbar)
 - Champagne Bars (champagne_bars)
 - Cocktail Bars (cocktailbars)
 - Dive Bars (divebars)
 - Drive-Thru Bars (drivethrubars)
 - Gay Bars (gaybars)
 - Hookah Bars (hookah_bars)
 - Irish Pub (irish_pubs)
 - Lounges (lounges)
 - Pubs (pubs)
 - Speakeasies (speakeasies)
 - Sports Bars (sportsbars)
 - Tiki Bars (tikibars)
 - Vermouth Bars (vermouthbars)
 - Whiskey Bars (whiskeybars)
 - Wine Bars (wine_bars)
 - Beer Gardens (beergardens)
 - Club Crawl (clubcrawl)
 - Comedy Clubs (comedyclubs)
 - Country Dance Halls (countrydancehalls)
 - Dance Clubs (danceclubs)
 - Jazz & Blues (jazzandblues)
 - Karaoke (karaoke)
 - Music Venues (musicvenues)
 - Piano Bars (pianobars)
 - Pool Halls (poolhalls)

Recommendation Engine



- ❖ Input: User Location
- ❖ Input: User Preference Tags (distance range)
- ❖ Google Maps API to deduce intersection, neighborhood
- ❖ Search through Data-frame, List closest Bars
- ❖ *Only recommend Bars that are Open!*

Flowchart



Next Steps

- ❖ Data-sources beyond Yelp
- ❖ Algorithm to Identify New Business and Prioritize Recommendations
- ❖ Enhanced User Preferences
- ❖ Develop the App and Deploy



Thanks Team for all the Brain-Storming over at the Happy Hours!