

Team NoseDamage — Justin Mohabir, Daniel He, Fang M. Chen, Ryan Lau

Target ship date: 2023-5-29

Design V.o for Crazy Taxi

Create a website that simulates a taxi ride on a map. There will be points on a map that have the starting destination of the taxis that come from a taxi ride dataset. Clicking on the point will simulate a taxi ride by using a route from the google routes api to the destination indicated on the taxi dataset.

Roles:

PM / Emotional Support - JM

DB management - FMC & RL

API Person - JM

Frontend - DH & JM

Flask -DH

JS - FMC & RL

Data:

<https://data.cityofnewyork.us/Transportation/2010-Yellow-Taxi-Trip-Data/74wj-s5ij>

<https://data.cityofnewyork.us/Transportation/2011-Yellow-Taxi-Trip-Data/uwyp-dntv>

<https://data.cityofnewyork.us/Transportation/2012-Yellow-Taxi-Trip-Data/kerk-3eby>

<https://data.cityofnewyork.us/Transportation/2013-Yellow-Taxi-Trip-Data/t7ny-aygi>

<https://data.cityofnewyork.us/Transportation/2014-Yellow-Taxi-Trip-Data/gkne-dk5s>

API(s): <https://developers.google.com/maps/documentation/routes>

DB (SQLite):

TEXT Username	TEXT Password
NoseDamage	1221241434124aba#\$^

2014_Rides

INTEGER PRIMARY KEY	REAL pickup_lat	REAL pickup_long	REAL dropoff_lat	REAL dropoff_long	REAL Mileage	REAL Total Cost

Additional Columns: REAL pickup_datetime, REAL dropoff_datetime

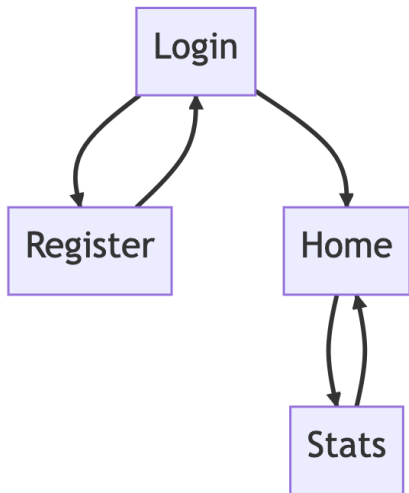
Program Components:

- __init__.py
 - Flask app
 - Renders templates
 - Uses db.py to interact with the dataset
- database.db
 - A table for usernames and passwords
 - A table for each year that contains the contents of the taxi data
- db.py
 - Contains methods for accessing and modifying the data in the database
- api.py
 - retrieving info from apis
- map.js
 - Contains the methods to create and display a map on the website
 - Contains methods necessary to create and move a taxi object along a route indicated by the google routes api
- graphs.js
 - Contains the methods to visualize data on the website

Templates:

- login.html
 - Form asking for username or password
 - Necessary in order to access the site
- register.html
 - Form asking for username or password
 - Displays error if the username is already taken
- home.html
 - Displays a map with the starting taxi coordinates
 - Can simulate a taxi route
 - Has a slider to change years
- Stats.html
 - Bar graphs that compares taxi data over time

Site Map:



Component Map:

