CSF-510 Application Development Project Proposal

Submitted by:
Name : Muhammad Amin Ghias
ERP ID : 25366
Date : 14th Nov 2021

PROJECT TITLE:

Food Engine Karachi

Team Member:

Muhammad Amin Ghias 25366

Project Description:

In this project we will build a search engine specifically to search restaurants in Karachi

Business Problem & Objective

In this fast-paced world, choosing a restaurant to find some good food has become time consuming, specifically when there are a lot of restaurants with a large variety of food items and new restaurants opening all the time. This makes choosing a restaurant of your liking a time-consuming job.

In order to help in this problem, we will build a search engine specifically for our food needs, here we would be able find to the best restaurants in our location as per our needs.

Workflow:

The server python interface will get a search request from our user on web API page, fetching these requests we will generate search request to the other web APIs we will use to collect the data which will be in JSON format this data will be cleaned, manipulated and represented in a list with features to be represented in the search result web pg.

Dataset/Web APIs:

The search engine on the backend we will use the following web API to collect data in JSON form:

1. Foursquare web api
2. Bing Custom Search API
3. Google Search API

Python Libraries:

The following python libraries will be used in our project

- flask
- pandas
- requests
- bs4
- numpy
- json
- plotly
- geopy
- folium==0.5.0

Features:

The web API which will search specifically for food items restaurants in Karachi, will have following features:

Inputs in search:

- Food type like burger, pizza, biryani, etc. selected from a drop-down menu
- Location: Enter your area location selected from drop down menu

Search Output:

List of restaurants based on your search. The list will have:

- Restaurant name,
- Address
- Ratings
- Reviews
- Website URL

The sorting of list will be based on best ratings, The web API will have two pages, The index page and search result page