Coursera Capstone

IBM Applied Data Science

Restaurants near me, Chennai

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Introduction

➢ The problem, "Restaurants near me, Chennai", is locating the nearest 5 venues from any given area in Chennai.
➢ Chennai has a large number of restaurants to cater to the needs of all of the people who are living in or visiting this place.
➢ Since there are large number of restaurants and people usually prefer to go to locations nearby, in this project, solving this problem is the main focus.

Target audience

➢ This business idea mainly targets the audience who have just moved to the city and need to get to know places in and around.

➢ Since a lot of students from outside to Chennai for joining in their colleges, and a lot of people relocate to Chennai for their jobs and stuff, this is mainly intended for them to have a better experience in finding nearby restaurants.

➢ This can also be used by residents when they move from one location to another, since Chennai is a vast city with multiple restaurants/dining places available.

DATA

➤ The data which will be needed for this project is the coordinates of the various areas in Chennai.
➤ Web Scraping is done from any page having the areas of Chennai, using the Beautiful Soup package available in Python.
➤ The coordinates of the areas will then be used to find out the various venues near the areas, using the FourSquare API.
➤ With further processing techniques using Pandas, we can separate the restaurant venues, using "Venues Category".
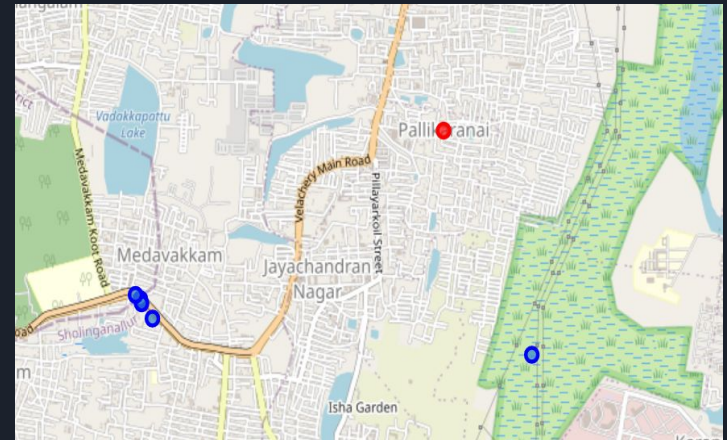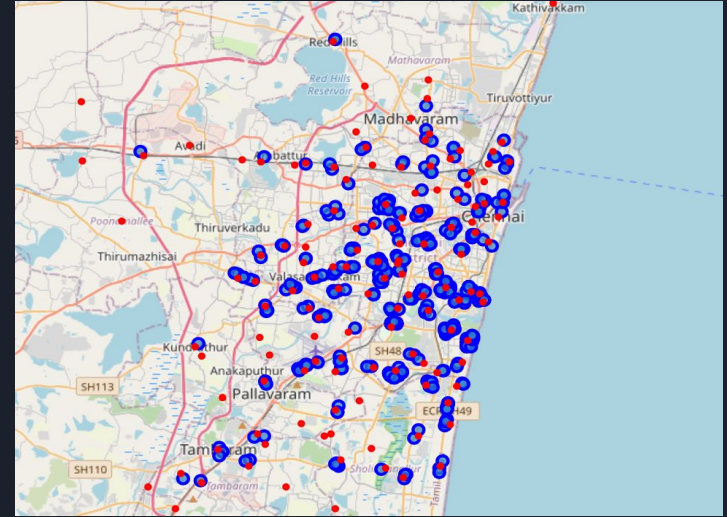➤ We can display the map using Folium package.

METHODOLOGY

➢ When the name of the areas in Chennai is extracted by utilizing the bs4 package, the latitude and longitude coordinates are obtained by using the Nominatim package.

➢ The venues, their latitude and longitude, and the venues' category, were returned from FourSquare using the lat-long values.

➢ The restaurants were separated using some processing techniques.

➢ The euclidean distance were calculated to display them in the map.
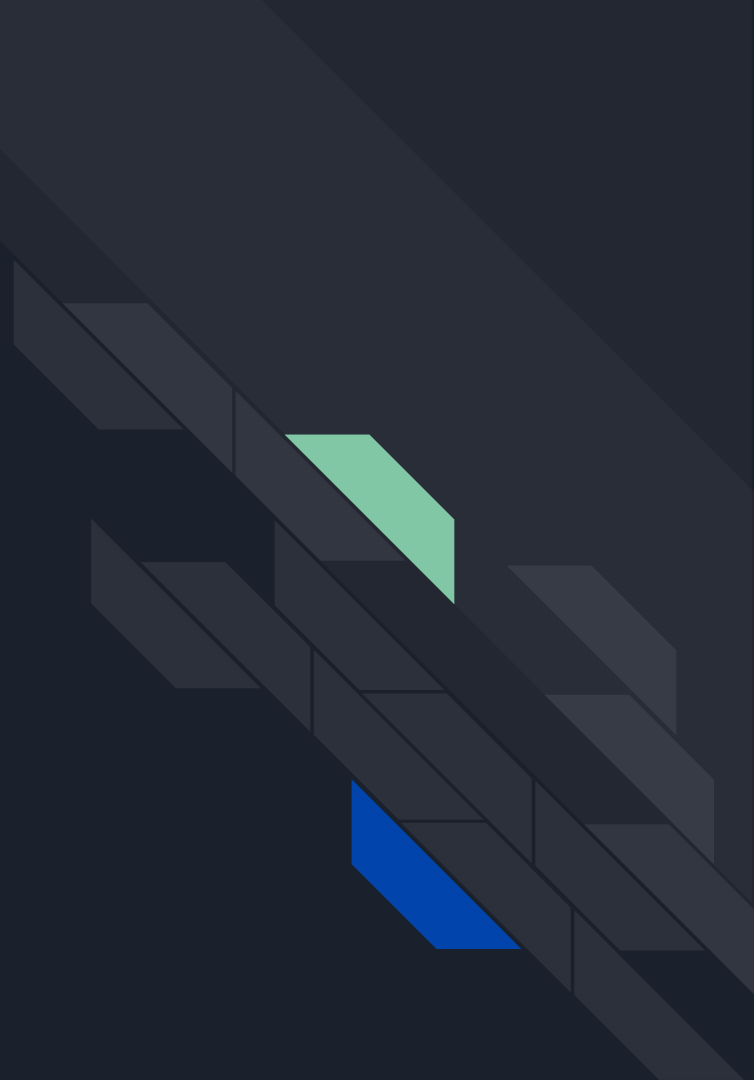
RESULT

➤ The result was 5 nearest restaurant/dining places to the given area. (fig 2)

➤ The results were visualized by using a folium map, and the venues were displayed using blue markers. The area was displayed using a red marker, to show the location of user and then blue to show the destinations.

➤ The first image is a representation of all the areas and venues.

Thanks!