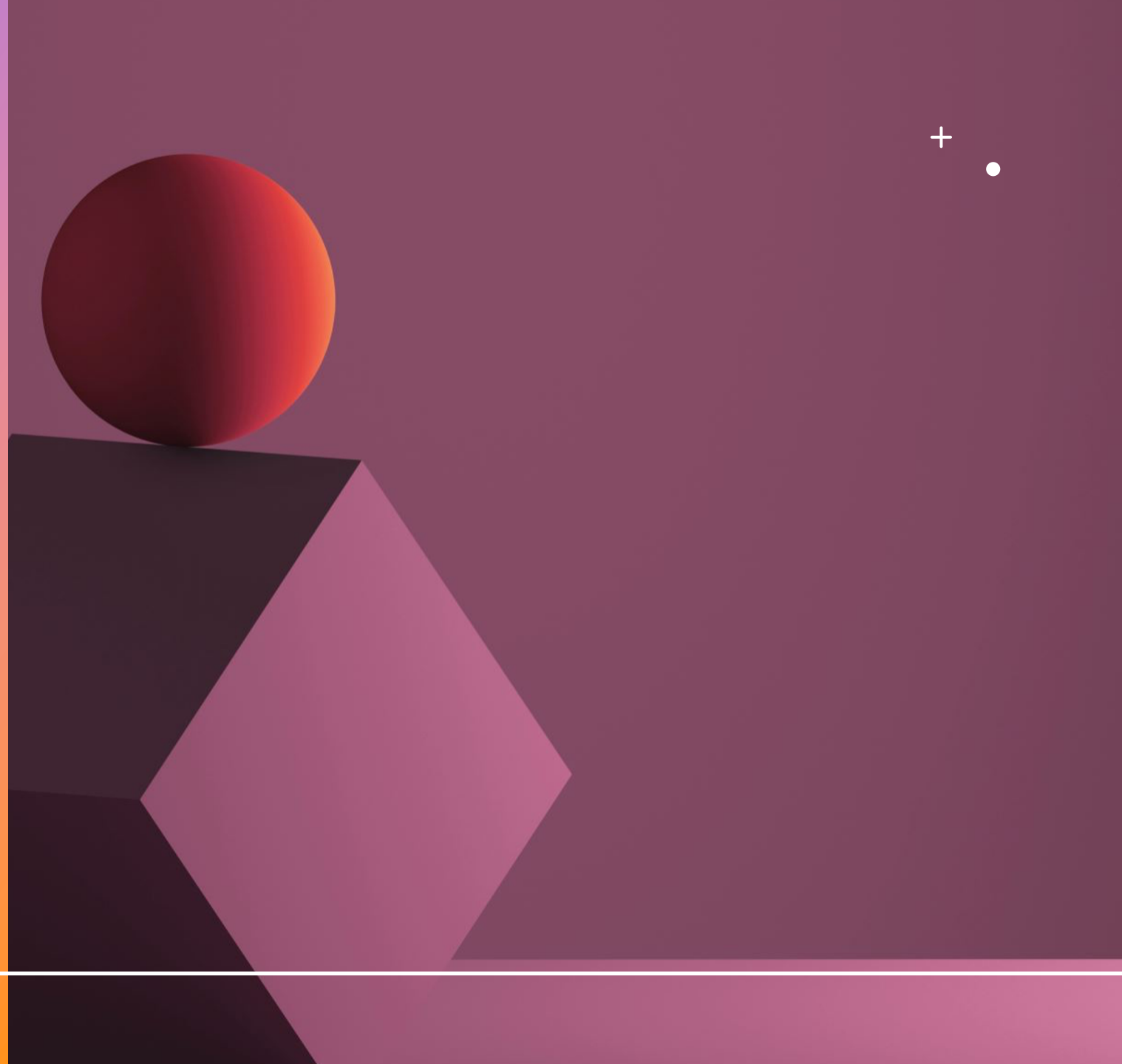
CAPSTONE PROJECT



PROBLEM DESCRIPTION

Singapore is located in Southeast Asia. In Singapore, it is well-known for being a cosmopolitan and diverse country. There are different races and religions here.

As such, the diversity and variety of restaurants are also in huge amounts from Western cuisine to Japanese cuisine to French cuisine. The problem would be that individuals with a particular tastebud or cuisine preference may not know where best to go and this can be solved if the country is segmented into different parts which shows which area has more of a particular cuisine. Also, another problem is that restaurants owners have a huge variety of option as to decide where to start the business. Hence, with this, they will know where is most suitable place in Singapore to open the restaurant. Thus target audience are potential restaurant owners and customers.

METHODOLOGY

Four Square API will be used to analyse the places/regions of Singapore. It also allows us to engage in location search and to know more about businesses and their vicinity

STEPS TO ACHIEVE

Acquire the Data and cleansing it

Obtain the geographic location’s recognition number of regions in Singapore
Finding the locations within Singapore

Next, k-clustering technique is used as there is unsupervised data and we can segment the locations into clusters since there are similar regions in Singapore.

SINGAPORE COORDINATES

1.3521 N, 103.8198 E

NEXT STEP: DATA PROCESSING

Purpose: Create Dataframe -> Use K means clustering

```
From sklearn.cluster import Kmeans
Kmeans = Kmeans (n_clusters =4, random_state = 0).fit(Singapore)
```

GROUPING INTO CLUSTERS

```
Singapore_grouped clustering = Singapore_grouped.drop(“Region”, 1)

Kmeans = Kmeans (n_clusters=4, random_state = 0).fit(Singapore_grouped_clustering)
```

THANK YOU