FINDING OUT A SUITABLE LOCATION IN HONG KONG TO OPEN A BOLLYWOOD THEMED RESTAURANT

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BACKGROUND

- A Famous Indian restaurant chain wants to open Bollywood themed restaurant in Hong Kong.
- The chain wants to expand its presence in South East Asia and chose Hong Kong as it has high number of People of Indian Origin (POI) and Bollywood cinema is very popular there.
- Main USP of the restaurant chain is movie inspired décor and Indian cuisine.
- It is also known for inviting Bollywood celebrities for events and handing out movie tickets, movie hall food coupon etc. during festive seasons.

CRITERIA FOR SELECTING RESTAURANT LOCATION

- Target customers: Movie going crowd, POIs and NRI Indians.
- Restaurant should have one or more favorite cinemas of the stakeholders nearby. List of such cinemas provided by stakeholders.
- Having shopping places, amusement parks or other places of interest are a plus as that will ensure more visibility.
- Good public transport is a must. Public transport facilities within 5-minute walking distance is preferable.

DATA ACQUISITION & PROCESSING

- The existing list of cinemas in Hong Kong are available in the website https://hkmovieó.com/cinema
- Stakeholders have given a list of their favorite cinemas and ranking of the cinemas The cinemas are ranked in a scale of 1 to 5 where 1 is least favorite and 5 is most favorite. The below is the list of the favorite cinemas:

Name	Rating	Address	Address Latitude	
Broadway Circuit - MONGKOK	4.5	6-12 Sai Yeung Choi Street, Mongkok, Kowloon	22.317077	114.170662
Broadway Circuit - The ONE	4.5	6-11/F, The ONE, No. 100 Nathan Road, Tsim Sha	22.300058	114.172667
Grand Ocean	4.3	Ocean Centre, 3 Canton Road, Cowloon 22.295165		114.169176
The Grand Cinema	3.4	2/F, Elements, 1 Austin Road West, Kowloon	22.304118	114.161466
AMC Pacific Place	2.3	evel 1, Pacific Place, 88 Queensway Road, Hon 22.277673		114.165566
UA IMAX @ Airport	1.5	6P059, Level 6, Terminal 2, 1 Sky Plaza Road,	22.316668	113.937787

DATA ACQUISITION & PROCESSING

• Based on the requirement we conducted some market analysis and came up with **five possible locations** for the restaurant. The locations are given below:

Location	Address	Latitude	Longitude	
L1	Sau Mau Ping Shopping Centre, Sau Mau Ping	22.319503	114.232187	
L2	Tuen Mun Ferry, Tuen Mun	22.371780	113.966039	
L3	Un Chau Shopping Centre, Cheung Sha Wan	22.337280	114.156457	
L4	Prosperity Millennia Plaza, North Point	22.291698	114.208168	
L5	Tsuen Fung Centre Shopping Arcade, Tsuen Wan	22.372112	114.11931 <i>7</i>	

DATA ACQUISITION & PROCESSING

- Based on the requirement we identified the below 6 categories of venues one or more of which type should be nearby to the location of the restaurant. The venues are:
 - Food other restaurants and coffee shops
 - Bus stop
 - Metro station
 - Shop & Services
 - Arts & Entertainment
 - Night life

We used Foursquare API to find the list of such venues around the cinemas in the mast list as well as surrounding the proposed locations.

DATA CLEANING

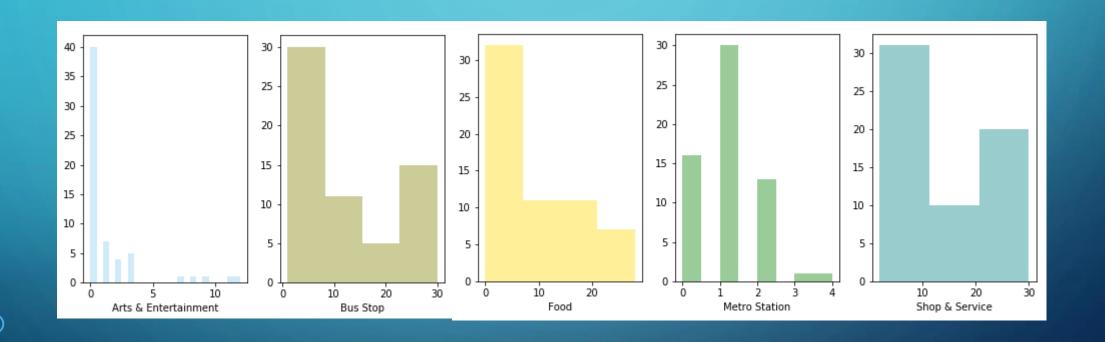
- While processing the master list of cinemas in Hong Kong we found many cinemas with duplicate address. These are generally 'Special Houses' associated with a main cinemas. We removed such entries.
- We also dropped unnecessary attributes from the data set.
- As we found only 2 nightlife spots in our dataset of venues nearby cinemas, we ignored this venue category.

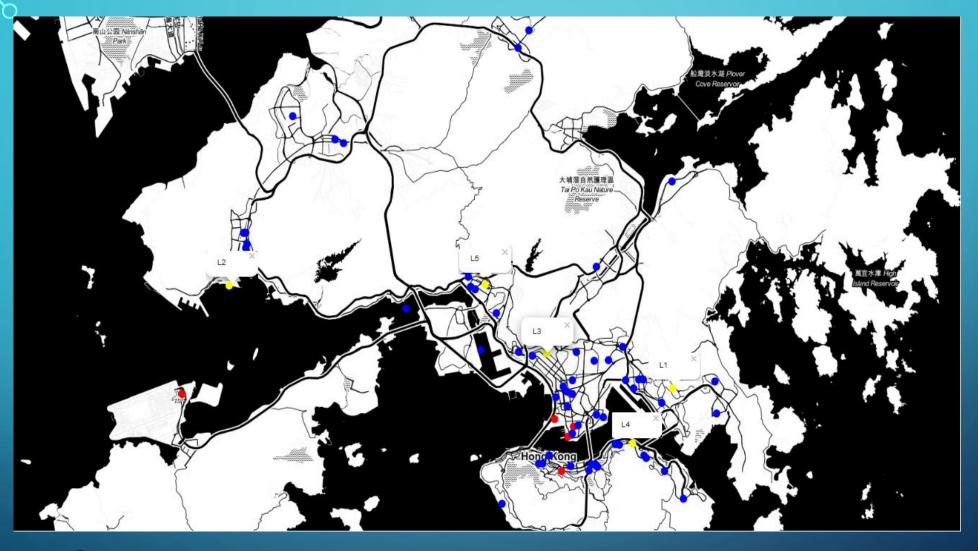
DATA ANALYSIS

We performed the following data analysis methodologies

- Generated descriptive statistics that summarize the central tendency, dispersion and shape of a dataset's distribution.
- Created distribution plot diagrams for each venue category from the master list of cinemas to better visualize frequency of distribution of each type of venue.
- Performed regression analysis and used P-Value analysis to find out the best possible location for opening the restaurant.
- Visualized the data in a map of Hong Kong where we showed the master set of cinemas ,favorite cinemas provided by stakeholders and proposed location and tried to figure out which was the best location in terms of nearness to one or more of the favorite cinemas listed by the stakeholders as well as by the number and type of venues nearby.

DISTRIBUTION PLOT DIAGRAMS FOR EACH VENUE CATEGORY





- Cinemas in Hong Kong
- Proposed locations
- Favorite locations

P-VALUE ANALYSIS

Category	Arts & Entertainment	Bus Stop	Food	Metro Station	Shop & Service
Arts & Entertainment	strong	strong	strong	weak	strong
Bus Stop	strong	strong	strong	strong	strong
Food	strong	strong	strong	strong	strong
Metro Station	weak	strong	strong	strong	strong
Nightlife Spot	strong	moderate	moderate	no	moderate
Shop & Service	strong	strong	strong	strong	strong

The correlation between 'Food', 'Bus Stop', 'Metro Station' and 'Shop & Service' categories are strong and significant.

RESULT

The result of our data analysis is represented in the form of a table which gives a numeric rating to each one of the 5 proposed venues suitable for opening the restaurant. To generate the table we followed following mechanism:

- We used **Content-Based recommendation systems** as we have a list of cinemas which are preferred by the stakeholders.
- Taking weighted average of every location based on the profile we recommended the top location that is most suitable for the new Bollywood themed restaurant.
- To draw our conclusion, we created the final sorted and weighted data which is given below.

Location	Address	Latitude	Longitude	Rating
L5	Tsuen Fung Centre Shopping Arcade, Tsuen Wan	22.372112	114.119317	0.869006
L3	Un Chau Shopping Centre, Cheung Sha Wan	22.337280	114.156457	0.660942
L4	Prosperity Millennia Plaza, North Point	22.291698	114.208168	0.546807
L2	Tuen Mun Ferry, Tuen Mun	22.371780	113.966039	0.136733
Li	Sau Mau Ping Shopping Centre, Sau Mau Ping	22.319503	114.232187	0.053035

DISCUSSION

- From the table in previous slide we can see that location **L5** has the greatest number of venues such as shops, bus stops, metro stations near to it. However, from the map, we can't find any of the stakeholder's favorite cinemas near to L5 locality. Also, there are only 3 other cinemas near to it.
- From the map we can see that venue L3 is near to 3 of the favorite cinemas and this location has many other cinemas surrounding it. It also has the second highest number of bus stops, metro stations and shops in the vicinity.



CONCLUSION

- Our team has decided to propose the location L3 with address Un Chau Shopping Centre, Cheung Sha Wan to the stake holders based on the following observations:
 - Movie goers are our target consumers and hence nearness to many cinemas, including favorite cinemas, is a must.
 - The brand can continue with its existing strategy of giving out movie tickets, food coupons and inviting celebrities with greater success in a locality populated with movie going crowd.
 - This location (L3) is well surrounded with venues such as bus stops, metro stations, shops etc. which is great for pulling family crowd.