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Using Analytics to Devise Marketing Strategies for setting a new Business

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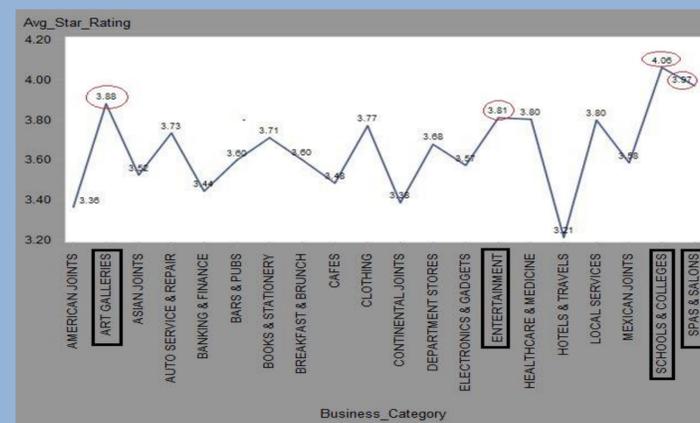
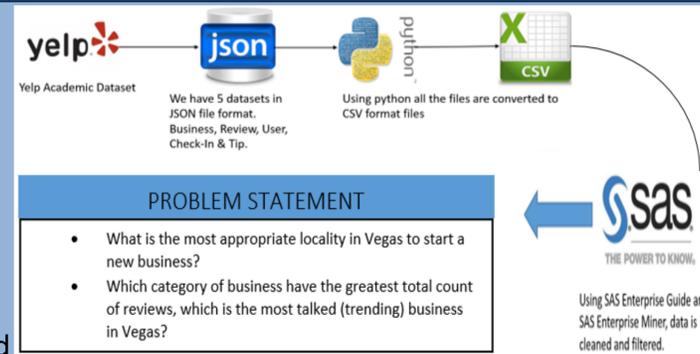
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ABSTRACT

- Someone has aptly said “Las Vegas looks the way one would imagine heaven must look at night”, and what if one gets to know the secret to run a plethora of various businesses in the entertainment capital of the world, Las Vegas.
- Finding the right Karaoke bar or a lovely Italian restaurant is not easy. Yelp, a community portal, wants to help people finding great local businesses. They cover almost everything from dentists and hair stylists through mechanics and restaurants. Yelp’s users – Yelpers – write reviews and give ratings for all kinds of businesses. Yelp then uses this data to make recommendations to the Yelpers about which institutions best fit their individual needs.
- I studied how a business runs in a locality and how the ratings and reviews tickers a business and attempt to answer the following problem statements:
 - What is the most appropriate neighborhood to start a new business (like cafe, bars etc.)?
 - Which category of business have the greatest total count of reviews, which is the most talked (trending) business in Vegas?

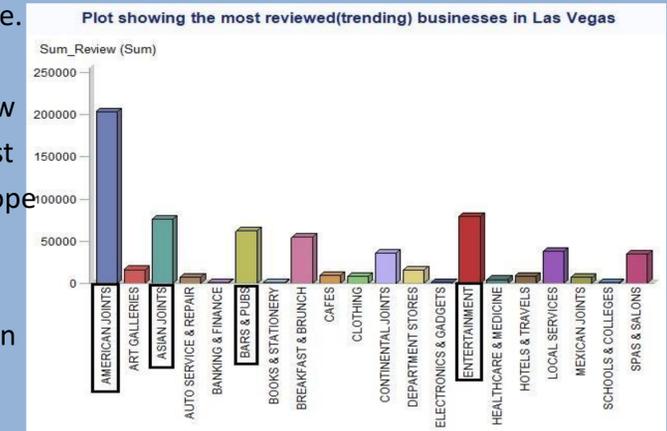
METHODOLOGY

- Figure1(top) shows the high level skeleton of the project.
- The prime focus was on the business and review datasets. All businesses in Las Vegas was categorized in to 20 categories.
- There are primarily 14 distinct localities in Las Vegas.
- Certain businesses had missing location, those values were retrieved using tree imputation depending on the latitude, longitude, business category, full address & star ratings.
- Figure2(bottom) shows all the various business categories and their average star ratings received from the users. To start a new venture, the scope was kept as the top four highly star rated business.
- To find the best locality to setup a business from each of the above selected business categories, we need to find the relation between the star ratings and a particular locality and then choose the location based on the best rating received by the business across various locality in Las Vegas.



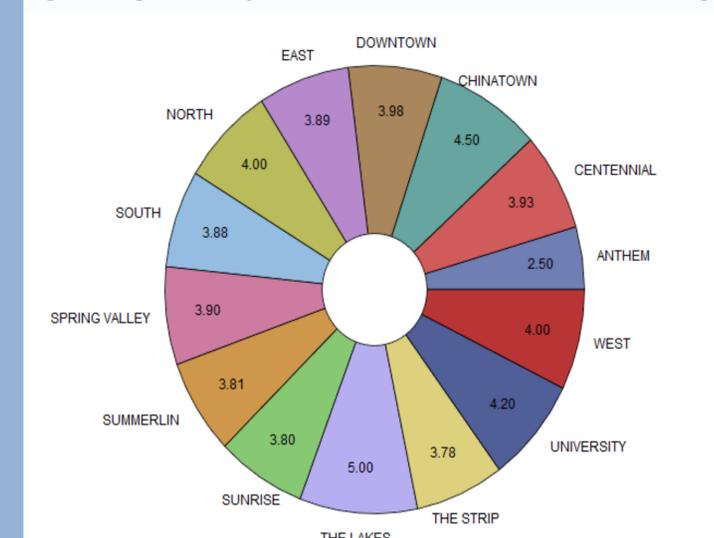
METHODOLOGY

- Figure3(right) shows all the businesses with most user reviews, i.e. the most trending business.
- Another approach to figure out the best location for setting a new business could be by finding which business is discussed the most by the users and in which locality. To start a new venture, the scope was kept as the top four trending business.
- By finding the relation between the different categories of votes, i.e. cool, funny or useful across all the business categories, we can know the authenticity of a review, and can help in improving the quality of business.

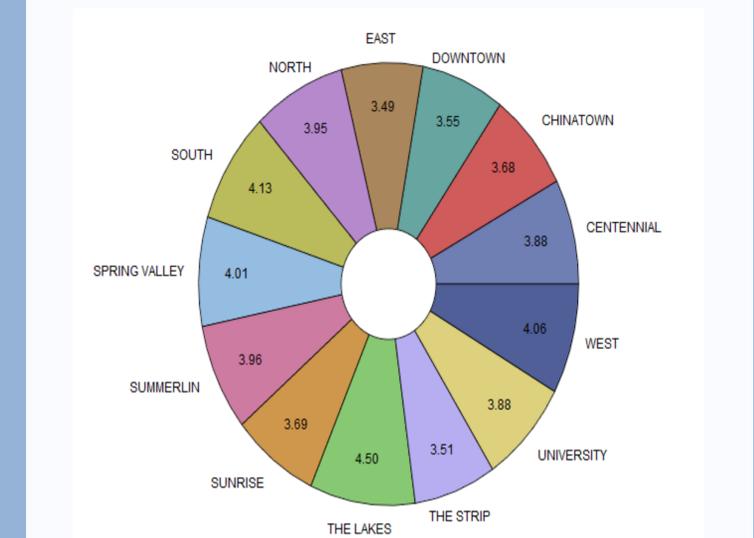


RESULTS AND CONCLUSION

Avg star ratings received by "Arts & Galleries" across various localities in Las Vegas



Avg star ratings received by "Entertainment" businesses across various localities in Las Vegas



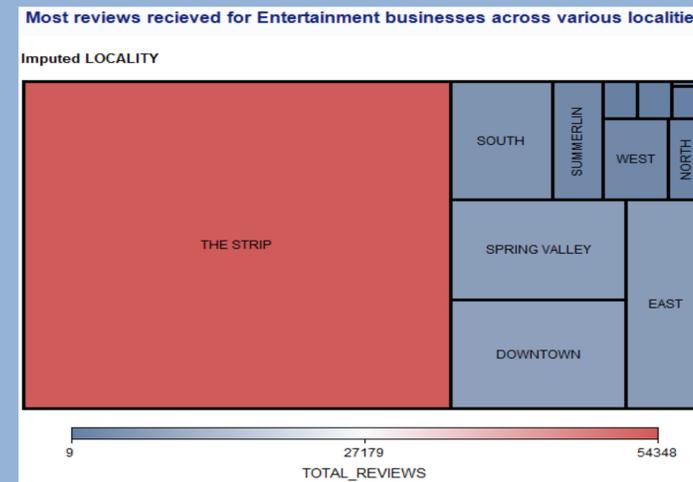
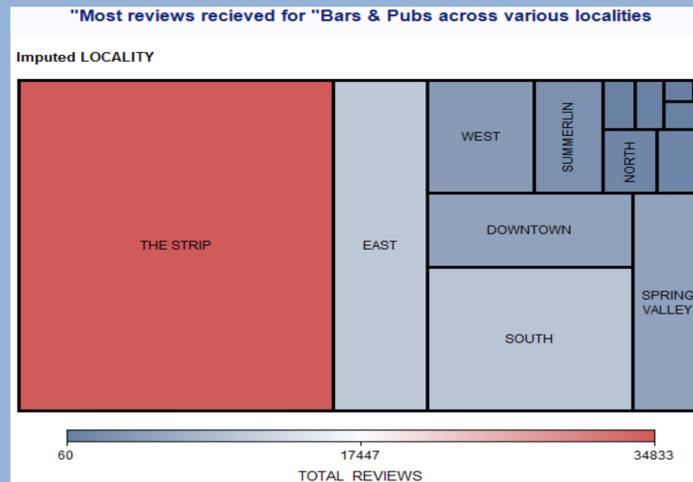
- Figure4(left) shows the average star ratings of “Arts and Galleries” across all the major localities, thus we can say that the best places to open a new Art store/Gallery would be : The Lakes followed by Chinatown and university.
- Figure5(right) shows the average star ratings of “Entertainment” businesses across all the major localities, thus we can say that the best places to open a new Entertainment business would be : The Lakes followed by South, West and Spring Valley.

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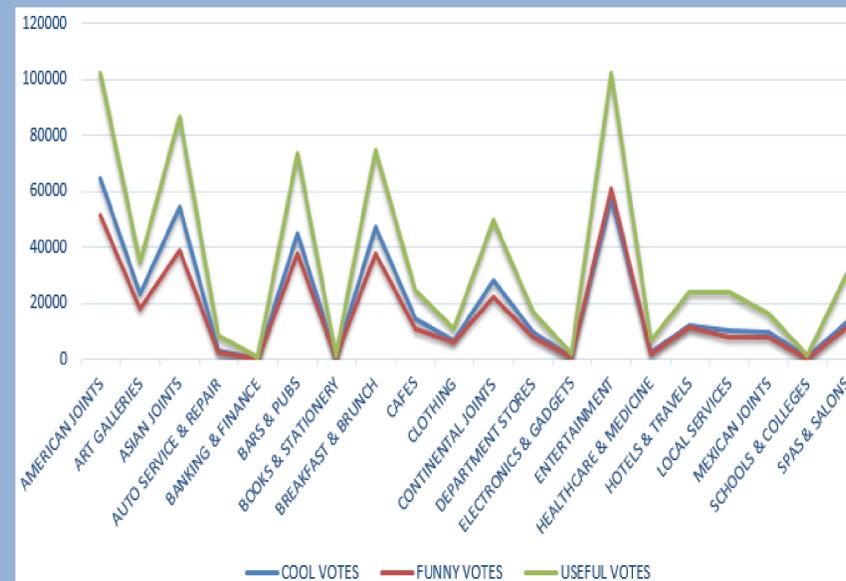
RESULTS CONTINUED



- For setting new Bars & Pubs, figure10(top left) shows that best places to open a bar/pub would be : The Strip followed by East and South.
- For setting any entertainment business, figur11(top right) shows that best places to open an entertainment business would be : The Strip followed by Downtown and Spring Valley.

• The line chart figur12(right) compares the total votes received by a business category . There are three different class of votes namely

- Cool Votes: Depicts the ambience and style of the business.
- Funny Votes: how amiable a business is with a customer.
- Useful Votes: how reliable is a business amongst the users.



FUTURE WORK, ACKNOWLEDGEMENT & REFERENCES

FUTURE WORK:

- The scope of this project can be easily extended to gather and interpret data with the additional businesses over time across other major cities .
- So far we have been dealing with the average rating and the trending businesses across various localities in Las Vegas, we can further use text mining on user reviews so as to get much more insights about how any business is actually fairing and is being accepted by a user.
- A user who had a decent experience with any business might give an average rating, but understanding his/her review comments makes more sense on how good or bad experience he/she had.

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