**IFT 533: Data Vis & Reporting for IT**

**Project – Phase I: Planning**

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**Dataset Description:**

The dataset provided for examination comprises a range of restaurant data, from cities and countries each with information about various aspects of the establishments. Each entry in the dataset corresponds to a restaurant, identified by a Restaurant ID" and listed under its "Restaurant Name". The dataset covers an area as shown by the "Country Code" column and offers localized details including "City" "Address" "Locality" and "Locality Verbose".

Essential location data is given through the "Longitude" and "Latitude" coordinates enabling analysis and mapping of restaurant positions. The array of cuisines at each restaurant is documented in the "Cuisines" section showcasing the culinary offerings within this dataset. Furthermore, financial aspects like the transaction currency. The price range is included, which could provide insights into each restaurant's market position.

Details about features of the restaurants are also provided, such as their table booking availability ("Has Table booking") and online delivery services ("Has Online delivery") along with information, on delivery status ("Is delivering now") and whether an order menu switch feature is available ("Switch to order menu").

Customer opinions are measured using the "Aggregate rating," along with a "Rating color" and "Rating text" to show how well a restaurant is doing in the eyes of its customers visually and in writing. The "Votes" section indicates the level of interaction and feedback gathered from customers.

This detailed collection of data gives a perspective on the restaurant sector allowing for examination on different fronts, like location spread, food preferences, service highlights and customer happiness measures.

**Prospective Dashboard Users:**

When thinking about who would benefit the most from the insights provided by our restaurant dataset it's important to consider the types of users who could use the dashboard. Firstly restaurant owners and managers are users who can use the dashboard to compare their businesses with competitors, understand what customers like and pinpoint areas for improvement based on ratings and feedback. Investors and entrepreneurs in the food industry would also find value in using the dashboard to spot trends, assess market opportunities and make decisions on how to invest their resources.

Moreover, food enthusiasts and bloggers might use the dashboard to discover rated restaurants, explore cuisines from various regions and create content that resonates with their audiences’ preferences. Local tourism boards and marketing agencies could leverage this data to promote dining experiences in their cities attracting tourists while supporting eateries.

Marketing professionals working in the restaurant sector constitute another user group as they can study trends, in cuisines pricing tactics and customer satisfaction levels to enhance marketing strategies and promotional efforts. In conclusion individuals analyzing data and conducting research within the hospitality and food service industries can utilize the dashboard, for research, industry publications and market evaluations to enhance insights into dining trends and preferences.

The varied user demographics highlight the dashboard's adaptability and its ability to act as an instrument in decision making, development and marketing efforts, across the restaurant sector and other related fields.

**List of User Requirements:**

To successfully implement our restaurant data analysis dashboard, it's crucial to establish a list of user needs that cater to the requirements of our potential users. These needs play a role in ensuring that the dashboard is not functional but also insightful delivering value to different user groups.

* **User Friendly Interface:** The dashboard should feature an easy-to-use interface allowing users to access and interpret data swiftly without the need for training. This involves labeling, design for various devices and interactive elements for an engaging user experience.
* **Visualizations:** Users should have the flexibility to personalize data visualizations based on their preferences, such as filtering by cuisine, location, price range or ratings. The ability to tweak charts, graphs and maps supports tailored analyses that cater to a range of objectives.
* **Real Time Data Updates:** It's essential for the dashboard to provide real time updates so that users can rely on trends and information in their decision-making processes promptly. This feature is particularly crucial for making decisions based on customer feedback, statuses or market trends.
* **Comparative Analysis Tools:** Users require tools that facilitate comparisons among restaurants, cuisines or cities across multiple parameters, like customer ratings, pricing levels and cuisine varieties. This function helps with comparing and analyzing competitors.
* **Enhanced Filtering and Search Options:** Having a range of data it's important for users to have advanced filtering and search options to efficiently narrow down data points. This includes filters, for location, cuisine type, price range and features like online delivery status.
* **Summarized Feedback and Reviews:** The dashboard should summarize customer feedback and reviews in an easy-to-understand manner. This allows users to quickly assess opinion and pinpoint areas for improvement or success.
* **Data Privacy:** Keeping user data secure is crucial. The dashboard should have security measures in place to safeguard user information and maintain data integrity.
* **Exportable Reports and Data:** Users should be able to export reports and data in formats (PDF, Excel, CSV) for further analysis, presentations or record keeping purposes.
* **Collaboration Tools:** For team collaboration features, like shared views, notes or exportable insights can improve decision making processes. Ensure alignment among stakeholders.
* **Customer Support:** It's crucial to have a range of support options, like tutorials, FAQs and customer service to guide users through the dashboard and help them maximize its functionalities. By meeting these needs the dashboard can serve as a tool for analyzing restaurant data. Become a go to resource for decision makers in the restaurant industry and beyond.

**Potential Questions:**

1. What are the top 5 cuisines offered by restaurants in your dataset?
2. Which city has the highest number of restaurants listed?
3. How many restaurants in your dataset offer online delivery?
4. What is the average cost for two people dining at restaurants in your dataset?
5. Which country has the highest-rated restaurants on average?
6. Is there any correlation between the average cost for two and the aggregate rating of restaurants?
7. How many restaurants accept table bookings in the dataset?
8. What is the most common price range among restaurants?
9. Are there any particular cuisines that tend to have higher ratings on average?
10. Which city has the highest average aggregate rating for its restaurants?
11. Do restaurants with online delivery tend to have higher average ratings?
12. Is there a relationship between the number of votes a restaurant receives and its aggregate rating?

**References:**

**Dataset Link:** <https://www.kaggle.com/datasets/mohdshahnawazaadil/restaurant-dataset>

**Mural Dashboard Link:** https://app.mural.co/t/sushank5030/m/sushank5030/1712263790900/fc5f85f8e428ec23711fdae39d82782efc901bf5?sender=ueb02cce70d4e3ee0d5484586