Team Dynamo

Assignment 6

Information Dashboard

Dataset used in this assignment:
Zomato_Restaurants_in_India

Data source for the charts:
Dataset was imported into MongoDB and the data for the chart was obtained from the MongoDB database. MongoDB is hosted on the cloud using MongoDB Atlas.

Chart Generation:
MongoDB charts was used for generating the charts and embedded into our web application using javaScript.

1. Key Performance Indicators of the dataset:
   - Number of text reviews
   - Stars (Aggregate ratings from 0 to 5)
   - Location (Cities)
   - Restaurants (Names)
   - Cuisines
   - Number of votes
   - Price Range

2. For whom is your dashboard designed? How does your dashboard increase the viewer's situational awareness? What action will your dashboard encourage?
The dashboard is designed for the users, i.e. the customers and restaurant owners to see the overview of the current information at a glance.

- For restaurant owners:

1. **Perception:**
   Business owners will get an idea about the distribution of ratings received, distribution of price range based on location, the most popular cuisines and locations which have the highest reviews by looking at the dashboard.
2. **Comprehension:**
   They can analyze the reviews and stars to make necessary changes in the cuisine type, quality, locality, price, etc. for the restaurants and food items.
3. **Projection:**
   The dashboard will highlight the areas that might need improvement in any of these factors or maintain the current status according to the feedback received.

- For customers:

1. **Perception:**

Users can find the most popular cuisines, find the restaurants with highest ratings, find the best rated cuisines and restaurant price ranges based on the cities, by looking at the dashboard.

2. Comprehension:

Depending on the positive or negative reviews, users can decide on the ordering a food item from a restaurant. Users can also choose cuisine types based on popularity and ratings.

3. Projection:

Existing customers might increase or decrease the use of the application for online ordering by looking at the positive or negative reviews from similar users and can explore other places and new items. New users might get aware and sign up to use the application if the reviews are positive.

3. What good dashboard design principles did you use?
   - Single screen dashboard with actual data from the dataset. Dataset is imported into MongoDB and the application generates the charts by making use of this data.
   - Only important and high-level information is shown, and excessive details are avoided.
   - Sparing use of color in data visualization:
     Colors are not overused. We have categorized the cuisines and restaurants according to the ratings. Each rating category is represented by a different color.

4. What good chart design principles did you use?
   - Charts are easy to understand with no separate instructions required.
   - We have tried to use the charts according to the data. For example, the distribution of ratings for restaurants is visualized using horizontal bar charts, with each rating category highlighted in different color. Similarly, distribution of cities with highest reviews is shown in a bar chart. Also, number of votes for different cuisines is shown in the donut chart.
   - Sparklines are used to show the trends of price ranges across various cities.
   - Maximized the data to ink ratio. Only the statistical information is shown in the charts with a simple background. No unnecessary lines are shown.

5. Did you use pre-attentive attributes well?
   - Increasing number of votes for various cities is shown in order to direct viewers' attention.
   - Separated the important factors like highest rated cuisines with a different colors (hue).