Business Requirements Document

Project Overview

Project Name: Zomato Restaurant Data Analysis Dashboard

Purpose: To provide a comprehensive analysis of restaurant data across multiple countries, cities, and cuisines. This dashboard will enable stakeholders to make data-driven decisions regarding restaurant performance, customer preferences, and competitive insights in various regions.

Objective: Equip Zomato's decision-makers with actionable insights into restaurant ratings, votes, cuisines, delivery options, and city-based distributions, fostering improved user engagement and optimized business operations.

2. Stakeholders

Primary Users:

- Business Analysts
- Data Analysts
- Marketing Team
- Regional Managers
- Executive Management

Secondary Users:

- Product Managers
- Regional Operations Teams
- Sales Teams

3. Functional Requirements

- Data Filters
- Delivery Options: Filter restaurants by delivery availability (Yes/No/All).
- Online Delivery: Filter by online delivery options (Yes/No/All).
- Price Range: Filter restaurants based on price range.
- Country: Filter data by country.

Key Performance Indicators (KPIs):

- Total Restaurants: Display the total number of restaurants (9,542).
- Total Countries: Show the count of countries (15).
- Total Cities: Display the count of cities with restaurant listings (140).
- Max Average Cost for Two: Represent maximum average cost visually using a gauge format.
- Total Votes: Present the total number of votes (3.74 million).

Visual Analysis Components:

- Votes by Rating: Horizontal bar chart showing vote distribution by rating categories (e.g., Excellent, Good, Poor).
- Total Restaurants by Rating: Vertical bar chart displaying restaurant counts by rating text.
- Total Restaurants by City: Vertical bar chart and list displaying percentage and count of restaurants by city (e.g., New Delhi 57.36%).
- Total Restaurants by Cuisine: Treemap with color-coding indicating cuisine popularity percentages.
- Geographic Distribution Map: Interactive map showcasing restaurant distribution by continent and regions.

4. Non-Functional Requirements

- Usability: Intuitive dashboard design with easily understandable filters and visualizations for users with basic analytical knowledge.

- Performance: Ensure fast loading times, even with large datasets.
- Scalability: Support future expansions to new locations and cuisines.
- Accessibility: Accessible on multiple devices, including desktops and tablets.

5. Data Sources

Primary Data Source: Own database with restaurant details, ratings, delivery options, costs, and votes.

External Data Sources: Geographic data providers (for maps) and currency exchange services (if required).

6. Data Transformation and Processing

- Data Cleaning: Remove duplicates, handle missing values, and standardize rating text categories.
- Aggregation: Summarize data by votes, ratings, cities, countries, and cuisines.
- Filtering Mechanism: Dynamic filters for delivery options, online availability, price range, and country.

DAX Calculations:

- Total Cities: Total Cities = DISTINCTCOUNT(zomato[City])
- Total Countries: Total Country = DISTINCTCOUNT(zomato[Country Names])
- Total Restaurants: Total Restaurants = DISTINCTCOUNT(zomato[Restaurant ID])

7. User Stories

- Business Analyst: "As a Business Analyst, I want to filter data by delivery options and online availability to analyze restaurant performance effectively."
- Regional Manager: "As a Regional Manager, I want to view city-based restaurant distributions to identify market penetration and opportunities."
- Marketing Executive: "As a Marketing Executive, I want to analyze popular cuisines for designing targeted campaigns."
- Executive: "As an Executive, I want a quick overview of KPIs to assess user engagement and restaurant performance."

8. Acceptance Criteria

- Filtering Capabilities: Filters must function without delays or errors.
- Data Accuracy: Displayed data must align with the Zomato database.
- Visualization Consistency: Charts and maps should dynamically update based on filter selections.
- Responsiveness: The dashboard must be usable across various screen sizes without loss of functionality.

9. Assumptions and Constraints

Assumptions:

- Regular data updates ensure timely insights.
- All users have the required permissions to access the dashboard.

Constraints:

- Regional data quality and availability may vary.
- Limitations on the number of filters to maintain performance.

10. Reporting and Insights Generation

- Custom Reports: Allow users to generate reports based on filters, such as restaurant performance by city or cuisine.
- Automated Insights: Highlight trends like cities with the highest ratings or emerging cuisines.