Rapidious

Assignment: Recipe Visualization Application

Project Title - EpiRecipes Visualization Application

Page 1: Objective

Objective: This assignment is designed to evaluate the candidate's ability to clean, analyze, and extract insights from data. The focus is on applying creativity to explore the dataset, present actionable insights, and effectively communicate these through visualizations and a brief video explanation. The candidate is expected to demonstrate a strong understanding of data analysis fundamentals and storytelling with data.

Task 1: Data Cleaning and Preprocessing

1. **Dataset**: Use the EpiRecipes dataset from Kaggle. The dataset contains recipe-related information, including ingredients, preparation time, and ratings.

   Kaggle.(https://www.kaggle.com/datasets/hugodarwood/epirecipes)

2. **Data Cleaning:**
   - Identify missing, duplicate, or incorrect data entries.
   - Use appropriate methods to handle missing data, outliers, and ensure data consistency.
   - Document your cleaning process: Explain the challenges faced and decisions made. Highlight any assumptions made during preprocessing.

Task 2: Exploratory Data Analysis (EDA)

1. **Exploratory Analysis:**
   - Perform an exploratory data analysis to uncover trends, relationships, and outliers within the dataset.
   - Visualize the data using at least three different charts (e.g., bar charts, scatter plots, histograms). Ensure these visualizations help narrate a story about the data.
2. **Detailed Insights:**
   - Based on the exploratory analysis, provide at least three key insights. Use these insights to answer potential business questions, such as:
     - What are the most common ingredients in highly rated recipes?
     - Are there correlations between preparation time and recipe ratings?
     - How can the data help improve the user experience for a recipe platform?

3. **Creativity Encouraged:**
    - Use your creativity to uncover less obvious patterns in the data. Explore relationships between variables that may offer valuable insights to the business.
    - Use whatever tools you deem appropriate – Python, Power BI etc.

Task 3: Video Presentation

- Video Submission: Record a 3-5 minute video where you walk through your analysis, the visualizations you created, and the insights drawn from the dataset.
    - Upload the video to YouTube and include the link in your final submission.

Final Submission Requirements:

- Your github or repository
- A link to the YouTube video where you explain your visualizations and key findings.
- Submit the link to the youtube video, github and any other materials to: recruitment@rapidious.com