Data Science Analyst at Radancy

Interview Prompt

2024

Project Outline: Normalizing Reviews and Creating an Aggregated Dashboard

Project Scope
The project aims to normalize review data from multiple sources and present an aggregated dashboard view for a specific company and its competitors. This involves gathering review data, standardizing it, and creating a visual dashboard to facilitate easy comparison and insights.

Objectives
- Data Aggregation: Collect review data from multiple sources such as Glassdoor, Indeed, InHerSight, and Comparably.
- Normalization: Standardize the review scores to ensure comparability across different platforms.
- Dashboard Creation: Develop an easy-to-understand dashboard that aggregates and presents the normalized data for quick insights.
- Instructions and Documentation: Provide clear guidelines for updating the workbook and document the normalization process.

Data Sources
- Glassdoor: Employee reviews and ratings.
- Indeed: Employee reviews and ratings.
- InHerSight: Ratings focusing on women's experiences in the workplace.
- Comparably: Reviews and ratings focusing on company culture and compensation.

Process
1. Data Collection
    a. Gather rating and review data from identified sources (Glassdoor, Indeed, InHerSight, Comparably, etc.).
    b. Identify key high-level themes across platforms (e.g., Company Culture, Career Opportunities, others?)
    c. Identify rating scales aligned with each theme from each site.
    d. Plan the approach for data collection for three sample companies (MVP)

2. Data Cleaning and Preprocessing
    a. Standardize rating scales across different sources.
    b. Handle missing values and inconsistencies.
    c. Identify and remove any duplicate entries.

3. Normalization of Data
    a. Develop a normalization method to combine ratings from different sources.
    b. This might involve statistical techniques to scale and adjust ratings.
    c. Apply the normalization method to create a "Blend" score for each category.

4. Interactive Dashboard Development
    a. Design the layout for the interactive dashboard (your choice of tool/platform).
    b. Summarize normalized data to provide an aggregated view.

    c. Include metrics like the number of ratings, overall score, and category-specific scores.
    d. Implement visual indicators for easy comparison (e.g., color-coding, charts).

5. Instructions and Documentation
    a. Document the methodology used for data normalization.
    b. Include any assumptions and considerations taken during the project.
    c. Write clear instructions using dashboard and understanding the insights.

6. Testing and Validation
    a. Verify the accuracy of the normalized scores.
    b. Ensure that the dashboard updates correctly with new data inputs.

Deliverables

- Normalized Review Data: A standardized dataset combining review scores from multiple sources.
- Aggregated Interactive Dashboard: A user-friendly dashboard providing a comprehensive view of the normalized review scores.
- Instructions Manual: Clear guidelines on how to update and maintain the workbook.
- Documentation: Detailed documentation of the normalization process and any assumptions made.

Submission Guidelines:

- Submit all scripts, documentation, and instructions in a single compressed folder.
- Provide a README file explaining how to run the scripts and any dependencies required.
- Provide a link to the final interactive dashboard.

Questions about the prompt?

Feel free to reach out to your individual recruiter or recruiting@radancy.com with any questions.

We appreciate your participation in the process and hope you find it to be an engaging exercise!

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