GlobalVision Systems & Data Intern Take Home

Welcome!

We're excited to see your skills in action. This challenge is designed to evaluate your ability to process and analyze data extracted from Salesforce, transform it using Python and SQL, and generate insightful visualizations to support business decisions.

Take your time to read through the instructions, and feel free to showcase your creativity and analytical thinking! Please share your submission with us in 1 week!

Challenge Overview

Your task will involve working with two datasets to:

1. Load and explore the data.
2. Process and transform the data using Python and SQL.
3. Create visualizations that provide meaningful business insights.

Datasets Provided (also attached to this email)

1. `accounts_anonymized.csv` - Contains Salesforce account data.
2. `support_cases_anonymized.csv` - Contains Salesforce support case data.

Part 1: Data Exploration

1. Load both datasets using Python.
2. Explore the data to understand its structure and content.

Part 2: Data Processing

Use Python and SQL (via libraries like `pandas`, `sqlite3`, or `pandasql`) to join the datasets and derive meaningful metrics you think would be valuable to our business. Focus on using SQL for this part.

Part 3: Data Visualization

Using Python visualization libraries (e.g., Matplotlib, Seaborn, or Plotly), create the data visualizations you judge are important based on the KPIs you created in Part 3.

Part 4: Business Insights

Based on your findings, answer the following questions:

1. What are the key insights you derived from the data and visualizations?
2. Propose two actionable recommendations that the business could take based on these insights.

Submission Instructions

Please submit your completed project in one week including the following:

1. A Python script (`.py` or `.ipynb` file) containing your code, including any SQL queries executed within the script.
2. A video recording of you walking us through your solution while running the developed scripts.
    a. The video should not extend 5 minutes.

What We're Looking For

We will evaluate your submission based on:

1. **Technical Skills**:
    - Ability to manipulate and process data in Python.
    - Proficiency in using SQL within Python for data transformation.
    - Skill in generating meaningful visualizations.
2. **Problem-Solving**:
    - Effectiveness in data cleaning and processing.
    - Logic and reasoning in deriving insights.
3. **Communication**:
    - Clarity in presenting findings and business recommendations.

Notes

- There's no single "right" way to solve this challenge. Use it to showcase your skills, creativity, and problem-solving approach.
- Feel free to use any Python libraries you're comfortable with, as long as your instructions in the README file make it easy for us to run your solution.

Good luck! We're looking forward to seeing what you create!