


Specialist, Web Data Technical Assessment

Thank you for your interest in Bain & Company's Web Data Center of Excellence. This technical assessment will evaluate your technical know-how and your ability to ascertain practical insights from extracted data. Any questions can be directed to John at john.fluhman@bain.com.

Requirements / Notes:

- It is intended that you spend no more than five hours on this assessment.
- You have one week from receiving the assessment to send your final deliverable back to our team.
- If you are unable to complete any portion of the task in the allotted time, please send us what you have completed to that point! Pseudocode is appreciated for sections that are incomplete.

Case

 This case is fictional and has no connection to any of Bain & Company's current or past cases

For this hypothetical project, we are analyzing the customer sentiment of key restaurant competitors. We have access to the Google Reviews for one of these competitors, but lack an understanding of where each reviewed location is located throughout the United States. Geographic relevance is a key element of our analysis and we need your help!

Your task is threefold:

1. Extract the la Madeleine Restaurant locations from their "Locations" page using JavaScript or Python
2. Associate the locations with the provided Google Reviews
3. Draft a single slide presentation highlighting any data-driven insights you have gleaned from the location data and reviews

Specifications & Instructions

Step 1: Extract Location Data

The Project Manager in charge of this case has identified a URL (<https://lamadeleine.com/locations>) that contains the data we hope to target.

Your objective is to extract all locations across the United States. While there is not a definitive method or approach to do so, the Project Manager mentioned that there may be an API call available that contains all US locations in a single network request.

Leveraging your knowledge of JavaScript, Python, and network APIs, programmatically extract the following fields into a CSV or XSLX file:

- locationName
- streetAddress
- city
- state
- postalCode
- phoneNumber
- storeID

Your code should be reusable, as our team would like to perform the same data extraction process on a quarterly basis. Try to mitigate manual data collection where possible by programmatically:

- excluding any extra data fields from the output file
- naming data fields to match exactly as they are listed above

Step 2: Association with Reviews

With the provided Google Reviews and location data you extracted, use any method of your choice to relate the two datasets together. This relationship is imperative, as we need to gain insights about the Google Reviews on a location by location basis.

 **Please Note:** you may assume that the provided Google Reviews are comprehensive for this piece of the assessment.

Step 3: Create Slide with Insights

Draft a single slide presentation using PowerPoint, Google Slides, or another slide deck software of your choice to highlight your insights. We are not looking for any insight in particular, so tell us about anything you think is interesting! In your slide, please include a visual as well as high-level text descriptions to illustrate your point. We will talk more in depth about your insights in a subsequent interview.

Submission

Your deliverable should be submitted to john.fluhman@bain.com

Your submission should include:

- A link to a GitHub repository containing the Python or JavaScript file you wrote to extract the restaurant locations
- A CSV or XLSX file containing the restaurant locations
- A single slide presentation (can be in PowerPoint, Google Slides, or any slide deck software of your choice) with your insights