

June 2021

Thank you for participating in Slalom's case study round! We appreciate your time in preparing for this case study presentation. Please read the information below carefully. We expect preparing for this case should take **six to eight hours**.

# Slalom Data & Analytics Case Study

## Use Cases for data preparation and analysis

Select **one** of these use cases and explore the dataset with that use case in mind. Please just pick one use case, even if all three of are of interest to you, to stay within the expected time frame.

1. How do property ratings affect vacancy rates and gross income for a property per year?
2. What is the impact of rain and temperature on listing vacancies in Seattle in 2016?
3. Which neighborhoods have the lowest average vacancy rate and highest average nightly rental fee?

## Potential Considerations to Explore

- What additional questions do you have around business context related to the dataset?
- How do you join the data files together to provide a richer dataset?
- What are some challenges encountered while working with the dataset, and how did you overcome those challenges?
- What actions can improve the dataset and data processing if we wanted to automatically import the files into a database for analysis?
- How complete and accurate is the dataset? Are there any gaps and what would you suggest to fix those gaps or errors?
- What trends (if any) exist in the listing data and weather data for the 2016 calendar year?

## Instructions

Please locate the datasets in the folder with this case study. Contact your talent recruitment contact if you have difficulty locating the files.

You may use any tools you're comfortable with to explore and draw insights from the dataset.

The format of the case will be a 30 minutes presentation to consultants in the personas listed above. We recommend the following agenda; overview, data integration approach, data challenges and resolutions, analysis findings, Q&A. Since the work time is limited, if you are unable to complete all aspects of the analysis, please speak to the approach you would take with more time.

## Case Personas

Below are the three case personas you will meet during your presentation

**Data Steward / Business SME** The Data Steward / Business Subject Matter Expert (SME) deeply understands the business context of the use cases and the business opportunity using the data. This person understands the value of quality data for decision making but needs assistance to prepare and analyze the data. This person has seen poor quality data create poor business outcomes.

### Lead Data Engineer

The Lead Data Engineer has worked on many data integration projects to assemble, cleanse, and merge data from multiple systems into a data platform for business analysis and decision making. This person often leads a team and is well-versed in data engineering design patterns, common challenges and resolutions, and mentors other data engineers.

### Lead Data Architect

The Lead Data Architect is responsible for designing and delivering the data platform containing the data for the use cases. The Lead Data Architect wants to support the analysis needs of the Business SME in a sustainable manner with best practices, and is committed to delivering trusted, reliable, timely, accurate, complete, and secure data for analysis.

## Criteria

Delivery (50)	Analysis (50)
Clarity (25)	Problem Definition (10)
Style (10)	Technical Approach (15)
Response to Questions (15)	Findings / Implications (25)

**TIP:** While machine learning or artificial intelligence may seem like the most innovative option, visual story-telling and exploratory analytics can be equally as impactful