

## Inventory Management Business Case

Dear candidate,

Thank you for taking the time to work on this business case. Feel free to spend up to 4 hours on this assignment; you have 7 days to complete it.

For this assignment assume the role of a business analyst in the inventory management team of a used car e-commerce website.

You are provided with a list of cars that have been published on the website. Please complete the following tasks:

1. Data Manipulation and Variable Creation: Perform exploratory/descriptive data analysis on the provided data points and create relevant reporting variables.
  - Hint: how is the data distributed? Are there any inconsistencies you can see? Can you build a car level business relevant variable from the data you are provided that will make analysis easier?
2. Reporting/Analysis: Using a spreadsheet (e.g., Google Sheets, Excel) or other data analysis software, provide an analysis using the provided data and any relevant reporting variables created in the first step.
  - Hint: Imagine you have 15 minutes to summarize the key findings from this dataset for a top manager of the e-commerce company. What metrics would you use to evaluate performance? What are the takeaways, and what further analysis is needed?

Note: you will be asked to present your findings in the next interview

Variables in the file are the following

- Car unique id: is a unique identifier of a car in our database
- First online date: is the day in which the car was published the first time on the ecommerce website
- Car sold on date: is the day in which the car was sold
- Manufacturer: identifies the car brand
- Model: Identifies the car model
- Fuel\_type: Identifies the type of fuel of the car
- buy price: Is the price the company paid for the car
- last available online price: Is the last price the car had on the ecommerce website
- External market reference price: Is an external market price for similar cars