

Case Study Project – Used Car Sales

You have been hired as a data scientist at Discount Motors, a used car dealership in the UK. The dealership is expanding and has hired a large number of junior salespeople. Although promising, these junior employees have difficulties pricing used cars that arrive at the dealership. Sales have declined 18% in recent months, and management would like your help designing a tool to assist these junior employees.

To start with, they would like you to work with the Toyota specialist to test your idea(s). They have collected some data from other retailers on the price that a range of Toyota cars were listed at. It is known that cars that are more than £1500 above the estimated price will not sell. The sales team wants to know whether you can make predictions within this range.

You will need to present your findings in two formats:

1. You must submit a written report summarising your analysis to your manager. As a data science manager, your manager has a strong technical background and wants to understand what you have done and why.
2. You will then need to share your findings with the head of sales in a 10 minute presentation. The head of sales has no data science background but is familiar with basic data related terminology.

For details on how your report and presentation will be graded, you can refer to the [grading rubric](#). You can find more information about the case study in our [general information guide](#).

Data

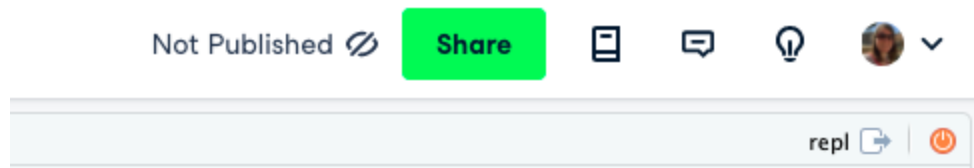
The data is available in a DataCamp Workspace, which you can find from the certification dashboard. The data set has the following columns:

Column Name	Details
model	Character, the model of the car, 18 possible values
year	Numeric, year of manufacture from 1998 to 2020
price	Numeric, listed value of the car in GBP
transmission	Character, one of "Manual", "Automatic", "Semi-Auto" or "Other"
mileage	Numeric, listed milage of the car at time of sale
fuelType	Character, one of "Petrol", "Hybrid", "Diesel" or "Other"
tax	Numeric, road tax in GBP. Calculated based on CO2 emissions or a fixed price depending on the age of the car.
mpg	Numeric, miles per gallon as reported by manufacturer
engineSize	Numeric, listed engine size, one of 16 possible values

Sharing your Technical Report

So that we can grade your technical report, you will need to share your Workspace.

When you have finished your work, press the “Share” button in the top right corner of the Workspace.




When prompted, press the “Publish” button. You will then see options similar to below.

Make sure you uncheck “Feature publication on my profile page”.

Publish your workspace

[View Logs](#)

This workspace was last published on **Aug 19, 12:26 PM**

<https://app.datacamp.com/workspace/w/41176bb7-5245-4d34...> 

notebook.Rmd



Update



Feature publication on my profile page

If you make any changes to your technical report between publishing and submitting, please make sure to “Update”, or you may be graded on a previous version of your work.

Remember to review your published workspace, and then go back to the certification dashboard and click “Submit workspace”.