



Kaufland Analytics – Take-Home Assignment

Dear Applicant,

We are very pleased about your interest in Kaufland Analytics and would like to get to know you better. In the next step, we ask you to complete the case study described below before your interview. On the one hand, we would like to give you an impression of our work and the associated issues. On the other hand, we would like to use your approaches and solutions to check the initial professional requirements for a successful cooperation.

Case study: The quality of Kaufland's red wine range

Scenario

At Kaufland, discussions are taking place on how to further increase the quality of the red wine assortment. However, there is disagreement in the discussion groups about what constitutes a good red wine. Therefore, with the support of Kaufland Analytics, it is now to be found out what exactly leads to a good wine rating. To ensure maximum objectivity, a research institute was commissioned to determine the physical-chemical properties of various wines. In addition, a team of wine experts assessed the quality of each wine. This data is now available and you have been commissioned to conduct an analysis of this data. The aim is to find out the drivers for outstanding wine ratings and to make a recommendation for the selection of the assortment based on this analysis.

Data

You can find the data set (including a short description) at:

<https://archive.ics.uci.edu/ml/datasets/wine+quality>

Please only consider the data set for red wines!

This is a dataset from the Machine Learning Repository of the University of California.

Deliverables Please prepare the results of your analysis in a clear and comprehensible **presentation (max. 3-5 pages)** and send it to aneliya.pancheva@kaufland.bg **at least two days before the interview.**

The presentation should include at least a so-called management summary, which summarises your results on one page and enables you to present your results concisely. You are also welcome to prepare additional pages documenting your assumptions, your approach and the detailed results. We ask you to also **send us your code of the analysis.**

Notes

Please note that we will also review the presentation before the interview - so your work must speak for itself. Show us how you combine business acumen with data analytics to support a business decision. You are free to use any analytical approach, tool or language as long as it can be appropriately reviewed and evaluated by our team. The scenario is deliberately concise. If you need additional information for your work, please make plausible assumptions and document them.

Quellen: P. Cortez, A. Cerdeira, F. Almeida, T. Matos and J. Reis. Modeling wine preferences by data mining from physicochemical properties. In Decision Support Systems, Elsevier, 47(4):547-553, 2009.
Dua, D. and Graff, C. (2019). UCI Machine Learning Repository [http://archive.ics.uci.edu/ml]. Irvine, CA: University of California, School of Information and Computer Science.