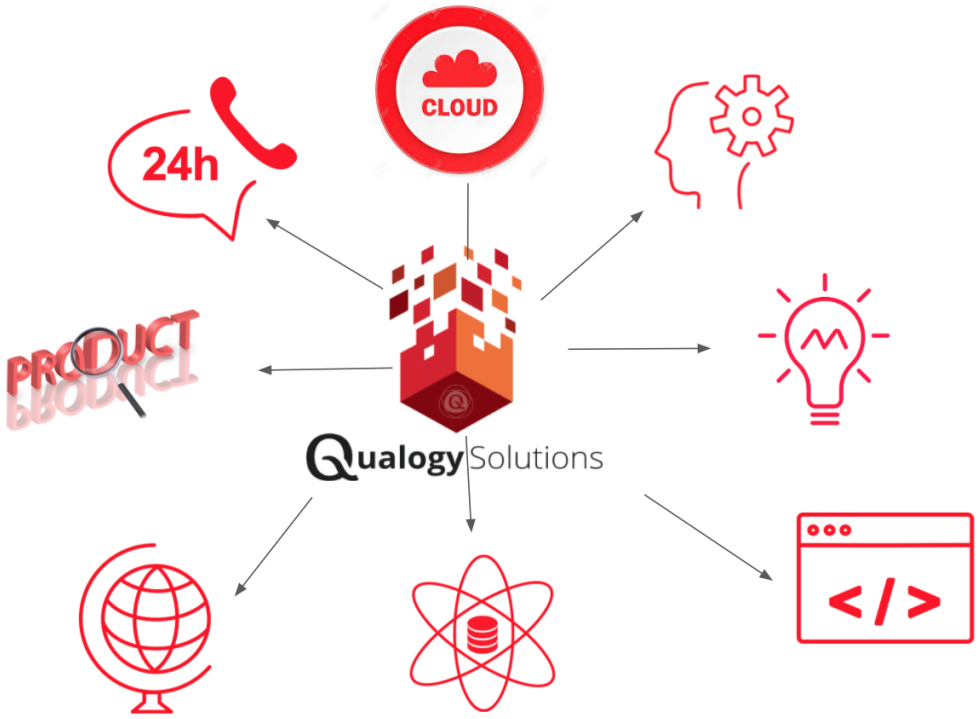
QUALOGY

Qualogy Data Science test case

‘Predicting preferred accommodation for a personalized travel recommendation system ‘



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TASK DESCRIPTION

You are given a dataset from a travel agency as a TXT file train_data.txt. For each record 7 attributes are provided, in the following order:

- "id", "durationOfStay", "gender", "Age", "kids",
- "destinationCode", "AcomType"

Short description:

- Unique trip id
- Duration of the trip (in days)
- Gender of the booker
- Age of the booker (in years)
- Kids in travel party (true/false)
- Destination country
- Accommodation type (apartment/hotel)

Your task is to discover patterns in the traveler and trip features that predict the accommodation type for a trip.
We consider this an easy one-file dataset and rather than prediction performance we are looking for a clean deliverable.
For example, you could do any one of the following,
- A proper python package
- A plan for or working deployment of a prediction model - Consider using cloud services
- Clean pipeline for data transformations
- Sell us your ideas backed up by a good business case - Show of best code practices with a good initial project setup and way-of-working

These are just some quick suggestions. We'd like to see how you work rather than the performance you can get.

SUGGESTED WORK-FLOW

1) Perform some exploratory analysis of the train_data dataset using the tools of your preference.
2) Think of machine learning techniques that are applicable for the task, but don't spend too much time on implementation. - Structure your code showing off best practices in any areas you care about (TestDataAccommodation.csv).

It's not only the infrastructure set up as delivery that is expected but also a design in the way of working through interactive sessions including documentation or training sessions.

DELIVERABLES

- Source code of your software implementation, preferably on a public or private Git. Sending a .zip of the code is also fine.
- Presentation of your solution and justification of your chosen approach.

TIMELINE

Deadline for receiving the deliverables is midnight before the interview. The interview will last 1.5 hours. Approximately half of the interview will be devoted to the test case. Aim for a 20 minute presentation.

HELP

Do not worry, we take into consideration that you work full-time. If you need any help or experience problems, feel free to contact us at quest@qualogy.com