

Data Scientist

Technical Exercise

As a Data Scientist in Apollo, your job is to turn data into competitive advantage. You will work alongside stakeholders, helping them make decisions to improve the productivity of the existing processes.

This exercise simulates a typical situation you'll face in your job at Apollo. It's part of your interview and you'll be evaluated on:

- approach towards solving the business problem
- exploratory data analysis
- model development
- correct performance metrics
- overall findings
- presentation & communication to technical & non-technical stakeholders

The code you write to build your model should be in PYTHON.

Your thought process and work need to be summarised in a Power Point presentation lasting no more than 15 mins. This is intended to be a technical presentation. Think of it as an end-of-project review with your line manager and other technical experts. In addition to the technical slides, include one or two extra ones summarising your findings & recommendations as you would communicate with non-technical stakeholders.

This presentation is to be submitted to Apollo by the working day before your interview.

Good luck! We look forward to seeing you at the interview.

Problem Briefing:

You are given access to a dataset containing information about Rubber Mixers. Your job is:

1. To build a model capable of predicting the efficiency of a mixer.

$$\text{Mixer Efficiency} = \text{total_weight} / \text{mixing_time}$$

2. To identify the features which will have maximum impact on the **mixingcycletime**.