

# Project introduction

It's time to deal with a real data science problem from the gold mining sector. This project is provided by [Zyfra](#).

When you finish, send your work to the project reviewer. You will receive feedback within 24 hours. After that, you will make any necessary changes to your work and send it for a second review.

Usually, this process has to be repeated several times until you get the green light from the reviewer and all the corrections are approved. That's all part of the job.

Your project will be considered complete once the project reviewer approves it.

## Task statement

Prepare a prototype of a machine learning model for Zyfra. The company develops efficiency solutions for heavy industry.

The model should predict the amount of gold recovered from gold ore. You have the data on extraction and purification.

The model will help to optimize the production and eliminate unprofitable parameters.

You need to:

- Prepare the data;
- Perform data analysis;
- Develop and train a model.

To complete the project, you may want to use documentation from *pandas*, *matplotlib*, and *sklearn*.

The next lesson is about the ore purification process. You will pick the information that is important for the model development.