

## Recruitment assignment

Your task is to predict the price of a laptop (buynow\_price column in the dataset) based on its attributes. Prepare a model in Jupyter Notebook using Python.

The model will be assessed using the RMSE measure on the test set, for which we're not sharing the real price. You will find out the result after submitting the assignment so make sure your model doesn't overfit.

Make sure that the notebook reflects your thought process. It's better to show all the approaches, not only the final one (e.g. if you tested several models, you can show all of them). We want the path to obtaining the final model to be clearly shown.

Input datasets:

1. public-dataset.json – the dataset you can use to train your model (available also in pickle format). JSON saved in orient='columns' format ([https://pandas.pydata.org/pandas-docs/stable/generated/pandas.DataFrame.to\\_json.html](https://pandas.pydata.org/pandas-docs/stable/generated/pandas.DataFrame.to_json.html)).
2. Hidden-Xs.json – the dataset you can use to make predictions using your model (available also in pickle format). JSON saved in orient='columns' format ([https://pandas.pydata.org/pandas-docs/stable/generated/pandas.DataFrame.to\\_json.html](https://pandas.pydata.org/pandas-docs/stable/generated/pandas.DataFrame.to_json.html)).

Please submit:

1. Notebook with your work
2. Dataset in format (index value, your prediction) that we'll use to calculate the final RMSE – in JSON format with orient='columns' ([https://pandas.pydata.org/pandas-docs/stable/generated/pandas.DataFrame.to\\_json.html](https://pandas.pydata.org/pandas-docs/stable/generated/pandas.DataFrame.to_json.html)).

Example how to load the data:

```
>>> import pandas as pd
>>> dataset = pd.read_json("public-dataset.json")
>>> dataset.columns
Index(['buynow_price', 'graphic card type', 'communications',
      'resolution (px)', 'CPU cores', 'RAM size', 'operating system',
      'drive type', 'input devices', 'multimedia', 'RAM type',
      'CPU clock speed (GHz)', 'CPU model', 'state',
      'drive memory size (GB)', 'warranty', 'screen size'],
      dtype='object')
```