**Homework**

The goal of this homework is to familiarize users with monitoring for ML batch services, using PostgreSQL database to store metrics and Grafana to visualize them.

**Q1. Prepare the dataset**

Start with baseline\_model\_nyc\_taxi\_data.ipynb. Download the March 2024 Green Taxi data. We will use this data to simulate a production usage of a taxi trip duration prediction service.

What is the shape of the downloaded data? How many rows are there?

* 72044
* 78537
* **57457**
* 54396

A screenshot of a phone

AI-generated content may be incorrect.

**Q2. Metric**

Let's expand the number of data quality metrics we’d like to monitor! Please add one metric of your choice and a quantile value for the "fare\_amount" column (quantile=0.5).

Hint: explore evidently metric ColumnQuantileMetric (from evidently.metrics import ColumnQuantileMetric)

What metric did you choose?

**report = Report(metrics=[**

**ColumnDriftMetric(column\_name='prediction'),**

**DatasetDriftMetric(),**

**DatasetMissingValuesMetric(),**

**ColumnQuantileMetric(column\_name="fare\_amount", quantile=0.5),**

**]**

**)**

A graph on a screen

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**Q3. Monitoring**

Let’s start monitoring. Run expanded monitoring for a new batch of data (March 2024).

What is the maximum value of metric quantile = 0.5 on the "fare\_amount" column during March 2024 (calculated daily)?

* 10
* 12.5
* **14.2**
* 14.8

Ans 14.2

A screenshot of a computer code

AI-generated content may be incorrect.

**Q4. Dashboard**

Finally, let’s add panels with new added metrics to the dashboard. After we customize the dashboard let's save a dashboard config, so that we can access it later. Hint: click on “Save dashboard” to access JSON configuration of the dashboard. This configuration should be saved locally.

Where to place a dashboard config file?

* project\_folder (05-monitoring)
* project\_folder/config (05-monitoring/config)
* **project\_folder/dashboards (05-monitoring/dashboards)**
* project\_folder/data (05-monitoring/data)