In this exercise we are providing you an example of financial data (all numbers are fictional).

**Deadline** is 10 days after you received this test.

**Task 1**

* You need to create an algorithm that can find outliers in this data by one column / several columns. E.g. some members have extremely high costs in the current month and your solution should be able to detect such records
* Think about features and how you would explain it to business people
* All financial columns contain $ sign

Please provide a Jupyter notebook describing your approach as a result of this task.

**Task 2**

* Create a web dashboard prototype in Python that allows users to:
  + Create slicers and dicers
  + Filters by date range / ...
  + Show data both in table and plotted formats
* Use paid\_amount column for analysis and other columns for filters
* Don’t worry about UI and design, just provide very simple functionality
* You are free to use Flask / FastAPI / plotly / bokeh / etc.
* Normalize text values in columns. Please, provide your approach to do it in the automatic way as Jupyter notebook. Think about it as you need to update this dashboard monthly and do not have time to normalize values manually

Columns:

member\_unique\_id - member's ID

gender - member's gender

dob - member's date of birth

eligible\_year - year

eligible\_month - month

affiliation\_type - doctor's type

pbp\_group - health plan group

plan\_name - health plan name

npi - doctor's ID

line\_of\_business - health plan type

esrd - True if patient is on dialysis

hospice - True if patient is in hospice

Please provide this task as a python project. You can send it as a zip archive / Git repository / Docker