Belvo Backend (API) Case Challenge

Purpose

We need to build a simple API that allows us to register users' transactions and have an overview of how they are using their money.

To do so, we want you to implement a REST API that can save users' transactions.

Each transaction has: reference (unique), date, amount, type and category

Example:

```
{
  "reference": "000051",
  "date": "2020-01-13",
  "amount": "-51.13",
  "type": "outflow",
  "category": "groceries",
  "user_email": "janedoe@email.com"
}
```

Constraints:

- A transaction reference is unique.
- There are only two types of transactions: inflow and outflow.
- All outflow transactions amounts are negative decimal numbers.
- All inflow transactions amounts are positive decimal numbers.
- We expect to receive transactions in bulk as well.
- The transactions we receive could be already in our system, thus we need to avoid duplicating them in our database.

Goals

Give the following example input:

```json
[
  {
    "reference": "000051",
    "date": "2020-01-03",
    "amount": "-51.13",
    "type": "outflow",
    "category": "groceries",
    "user_email": "janedoe@email.com"
  },
  {
    "reference": "000052",
    "date": "2020-01-10",
    "amount": "2500.72",
    "type": "inflow",
    "category": "salary",
    "user_email": "janedoe@email.com"
  },
  {
    "reference": "000053",
    "date": "2020-01-10",
    "amount": "-150.72",
    "type": "outflow",
    "category": "transfer",
    "user_email": "janedoe@email.com"
  },
  {
    "reference": "000054",
    "date": "2020-01-13",
    "amount": "-560.00",
    "type": "outflow",
    "category": "rent",
    "user_email": "janedoe@email.com"
  },
  {
    "reference": "000051",
    "date": "2020-01-04",
    "amount": "-51.13",
    "type": "outflow",
    "category": "other",
    "user_email": "johndoe@email.com"
  },
  {
    "reference": "000689",
    "date": "2020-01-10",
    "amount": "150.72",
    "type": "inflow",
    "category": "savings" ,
    "user_email": "janedoe@email.com"
  }
]
```

1. We want to be able to see a summary that shows the total inflow and total outflows per user

Example:

```
GET /transactions?group_by=type

[
  {
    "user_email": "janedoe@email.com",
    "total_inflow": "2651.44",
    "total_outflow": "-761.85"
  },
  {
    "user_email": "johndoe@email.com",
    "total_inflow": "0.00",
    "total_outflow": "-51.13"
  }
]
```

2. We want to be able to see a user's summary by category that shows the sum of amounts per transaction category:

Example:

```
GET /transactions/{user_email}/summary

{
  "inflow": {
    "salary": "2500.72",
    "savings": "150.72"
  },
  "outflow": {
    "groceries": "-51.13",
    "rent": "-560.00",
    "transfer": "-150.72"
  }
}
```

Expectations

- Build the app using Python
- Provide simple and clear instructions for building and running your app

- The endpoints are just examples, feel free to change them according to your needs, we only expect you to follow the response format.
- Optimize based on your available time, not on app performance
- Unit tests
- Dockerized app
- Deliver as a **<u>private</u>** git repository, sharing with the GitHub user "belvo-hiring" when complete and indicating your GitHub user to the people team.
- Good to haves:
  - Django + DRF as framework