Backend (Jest and Serverless)

Backend Testing is the process of testing the server-side of software, applications, and web services. It aims to ensure the proper processing and management of data by verifying databases, servers, APIs, and other backend components. Backend testing helps prevent bugs, enhance application performance, and guarantee high-quality output.

Jest is a JavaScript testing framework designed for simplicity. It enables you to craft tests using an easy-to-understand API that delivers quick results. Jest comes with comprehensive documentation, minimal setup, and can be customized to suit your needs.

Serverless refers to a cloud computing model where the cloud provider handles server allocation and provisioning dynamically. In this model, applications run in stateless, event-triggered containers that are temporary and fully managed by the provider. Serverless architecture boosts productivity, simplifies systems, and cuts operational costs.

Installation: `yarn add --dev jest @types/jest`
Example:

```
describe("Handler", () => {
  it("should return a status code of 200", async () => {
    const { list } = require("./handler");
    const event = new HttpApiEvent();
    const response = await list(event);
    expect(response.statusCode).toEqual(200);
  });
});
```

Run Tests: `yarn run test`

```
yarn run v1.22.19
$ jest
 PASS  src/functions/currency/list/handler.test.ts
  Handler
    √ Return a 200 (435 ms)

Test Suites: 1 passed, 1 total
Tests:       1 passed, 1 total
Snapshots:   0 total
Time:        2.094 s
Ran all test suites.
Done in 4.56s.
```

The platform currently has one test, which simply lists the available currencies.

In the future, we aim to implement tests for:

Entity:

- Create an entity successfully
- Activate an entity successfully
- Block an entity successfully
- Delete an entity successfully
- Add a plan
- View plan details
- List entity plans successfully

Invoice:

- Create an invoice successfully
- View invoice details
- List all invoices successfully
- Delete an invoice successfully

Transactions:

- Create a transaction successfully
- View transaction details
- List all transactions successfully

Commissions:

- Create a commission successfully
- View commission details
- List all commissions successfully

Dashboard:

- Load the dashboard successfully
- Ensure the dashboard displays correct data

Status:

- View status details