Homework 8

Cairo 1 Contracts

Install Protostar

[Installation](#)

Create a project

```
protostar init-cairo1 my-project
```

This is going to create a project with an example `HelloStarknet` smart contract, a `utils` library and unit tests for both. You can run unit tets with:

```
protostar test-cairo1
```

Your tasks:

1. Create unit test for HelloStarknet `get_two` method
2. Store balance in `u128` rather than a `felt` data type. Modify corresponding methods and unit tests if necessary.
3. Already implemented `increase_balance()` is a bit boring so modify such that it only allows for to increase balance in even amounts. Of course start with a unit test.
4. We don't want the balance to go too high. Set up contract owner in a constructor and make sure that only owner can increase balance by more than 1000. Of course start with unit tests.
5. Owner would like to quickly check who has increased the balance. Lets store addresses of all users who have increased a balance in an array. Also make sure with unit tests that this information can be retreived.
6. Owner would like to quickly check by how much particual users have increased the balance. Lets store this data in a map. Also make sure with unit tests that this information can be retreived.