Cairo Crash Course

Ownership - Exercise 1

In this exercise, we will practice Cairo ownership features using `Structs`. We will also explore snapshots and disnapping variables.

Contract Implementation

In `ownership_exercise_1.cairo`, complete the following:

- Create a `Struct` named `Position` with `price: u32` and `amount: u32`.

- Create a `get_value` function:

    - Takes a snapshot of `Position` and returns a `u32`.
    - Desnap `price` and `amount`, then multiply them.

- Create a `change_value` function:

    - Takes a reference of `Position`.
    - Flips the values:
        - `price` becomes `amount`.
        - `amount` becomes `price`.

Writing Tests

In the `test_ownership_1.cairo` file inside `test_snapshots_references()`, do the following:

- Declare a mutable variable `p1` with `Position` (price: 3000, amount: 10).
- Invoke `get_value(p1)` and assert the expected return value.
- Invoke `change_value(p1)` and make sure that the fields are flipped.

Check the exercise by running the command `snforge test ownership_1`.

Useful links

[References and Snapshots](#)