

# Cairo Crash Course

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## First Cairo Contract - Exercise 1

In the following exercise your goal is to create a simple smart contract with Storage, and Events.

If you are not sure about the syntax, you can always refer to the Lecture video or to the [Cheatsheet File](#).

## Tasks

In the file `first_cairo_contract.cairo`:

1. Define an interface `IMyFirstCairoContract` with 2 functions:
  1. `set_number()` - receives a u256 `number` and returns nothing.
  2. `get_number()` - received nothing and returns a u256.
2. Create a new cairo smart contract `MyFirstCairoContract`:
  1. Define the contract storage with one `u256` variable named `number`.
  2. Define an event that is called `NumberChanged`, which will be emitted anytime the number is being changed in the storage, the event should be emitted with the old and new number
  3. Create a constructor function that receives an `initial_value` u256 and write it to storage, don't forget to emit a `NumberChanged` event.
  4. Implement the `IMyFirstCairoContract` interface, and both `set_number()` and `get_number()` accordingly so they will set and get the number from the contract's storage, and emit and event in case the number is changed.

## Checking the Exercise

1. We haven't learned how to write tests yet so I will go easy on you 😊
2. For now you can just take a look at the `test_first_cairo_contract_1.cairo` and try to understand how it works.
3. Execute `snforge test first_cairo_contract_1` and make sure all the tests pass.

## Useful links

[Anatomy of a Simple contract](#)

[Contract Storage](#)

[Contract Functions](#)

[Contract Events](#)

[Running Tests snforge](#)