Memento Pattern

behavioral design pattern

Links

This link talks about creating a text editor with the ability to undo. It is the main link we will use.

https://refactoring.guru/design-patterns/memento

You can also check out the wikipedia.

https://en.wikipedia.org/wiki/Memento_pattern

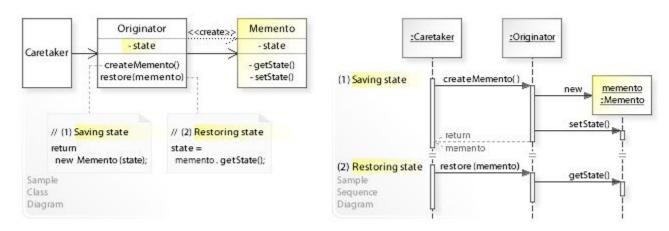
What Does it Do?

The Memento pattern lets you undo something. But a better term then undo is to restore or rollback to a previous state.

It maintains the state history of an object without revealing its implementation detail.

The basics of how it works is by saving mementos of an object's internal state, and those mementos can later be restore, thus the idea of rolling back to a previous state.

https://en.wikipedia.org/wiki/Memento_pattern



- 1. The Originator the object whose state needs to be saved and restored
- 2. The Memento the saved state object that stores the Originator's internal state
- 3. The Caretaker responsible for storing and managing the Memento objects

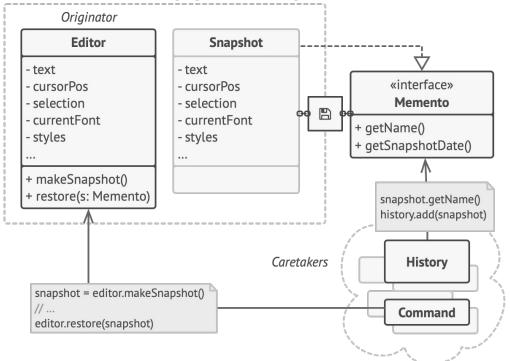
When To Use

Any time you want to restore an object state.

- such as in text editors
 - Think ctrl + z
- graphics applications
 - o I mean ctrl + z again but instead of removing text its remove graphics from the screen
- games
 - A list of save files is a list of mementos.

The UML we will implement and add to

https://refactoring.guru/design-patterns/memento



Link to code the code: https://github.com/Quinn-T-Nash/Presentation