# Behavioral Patterns: Memento



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## Overview



## Complicated computer game

Hero dies!

Save game option

## Memento pattern

- Snapshot of game state at point in time
- Restore the game to a previous snapshot
- Maintain encapsulation

Implement a simple memento for "I \$\psi 42"

Also known as the Token pattern



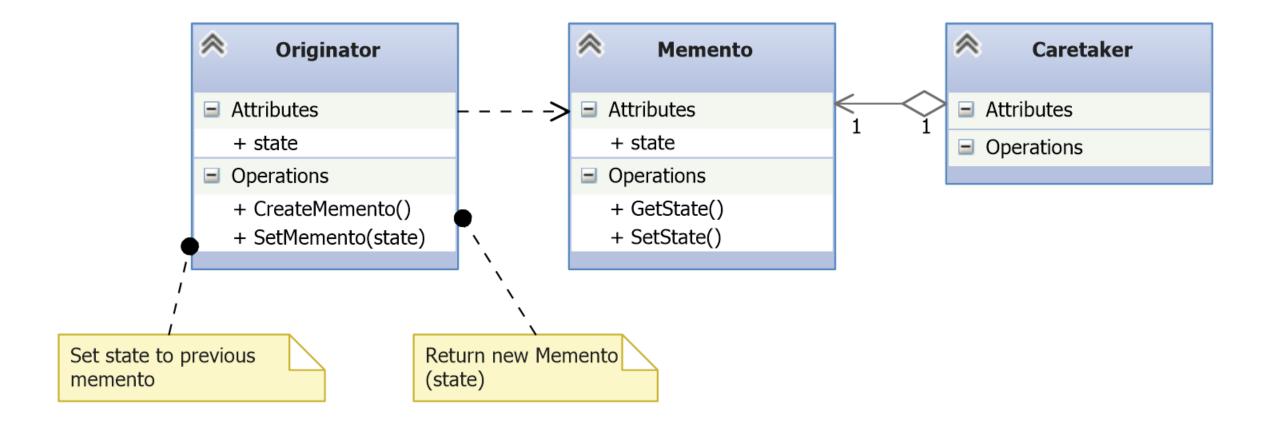
# Demo



Naïve implementation of game save



## Memento Structure



# Demo



Use Memento to save/restore game state



# Summary



#### **Benefits**

- Preserves encapsulation
- Simplifies the Originator class
- Easy-to-implement state restoration

### **Drawbacks**

- Using mementos might be costly
- Caretaker class can be memory intensive
- Python introspection can break encapsulation

