

OBJECT ORIENTED DESIGN PATTERNS 2

EX-09

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Memento Design Pattern

- ▶ Memento pattern (snapshot pattern) is a behavioral design pattern, and it's used to save and restore the previous state of an object.
- ▶ If you want to develop an application, that has undo or rollback functionality, you should go with the memento design pattern.
- ▶ Most of the software developers use this pattern whenever they want to develop such functionality within their application.

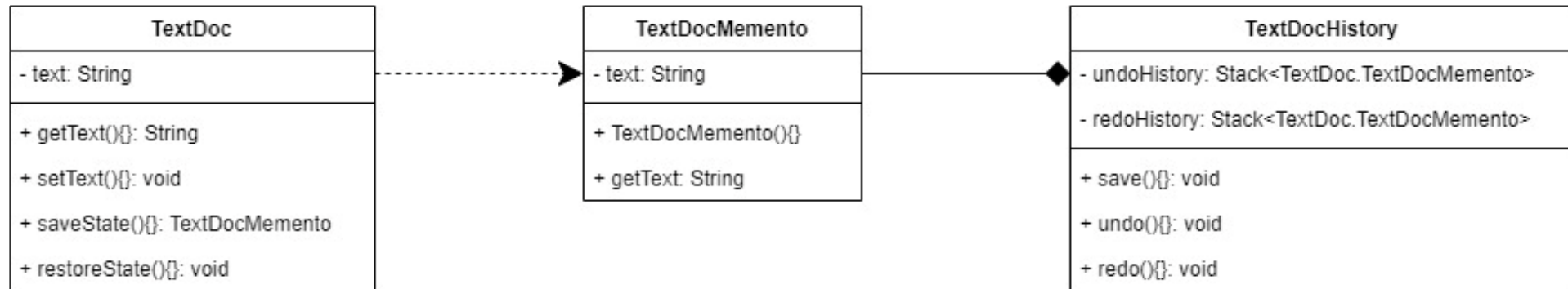
Components of Memento Pattern

- ▶ **Originator:** The object that we need to maintain the state. Basically, the originator object creates a memento object to store its internal state. As a result, the originator object knows how to save and restore itself.
- ▶ **Caretaker:** The object that keeps the track about originator. Basically, caretaker knows why and when the originator needs to save and restore itself.
- ▶ **Memento:** The Object that contains basic state storage and retrieval capabilities. Usually, the memento object is immutable and pass it's the data only once, through the constructor.

Scenario

- ▶ Develop a notepad application and demonstrate the undo and redo processes by using the memento pattern.

UML Diagram





Let's go to see the Demo