07/07/2025, 00:03 Notebook



Last Edited: Jun 08, 2024



All Behavioral Patterns (Concept and Coding)



27. All Creational Design Patterns

Chapters: 00:00 - Introduction 00:50 Pattern 09:05 - Singleton Design Pat



32. All Structural Design Patterns

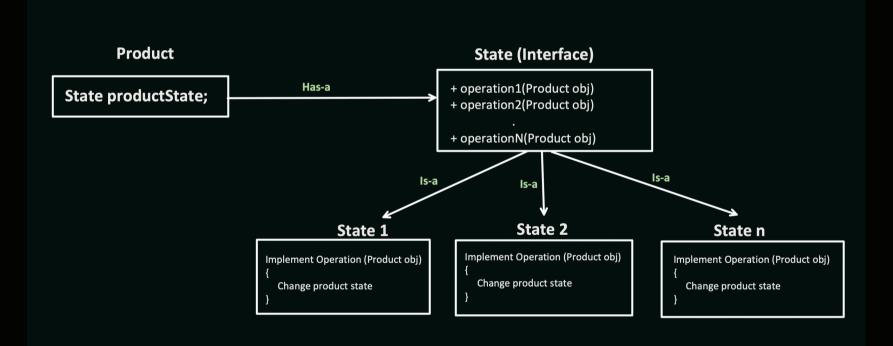
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Behavioral Design Patterns:

Guides how different objects communicate with each other effectively and Distribute tasks efficiently, making software system flexible and easy to maintain.

- 1. State Pattern
- 2. Observer Pattern
- 3. Strategy Pattern
- 4. Chain of Responsibility Pattern
- 5. Template Pattern
- 6. Interpreter Pattern
- **Command Pattern**
- 8. Iterator Pattern
- 9. Visitor Pattern
- 10. Mediator Pattern
- 11. Memento Pattern

1. State Pattern: allows an object to alter its behaviour when its internal state changes.



```
public class VendingMachine {
                                                                                                          public interface VendingState {
VendingState machineState;
                                                                             Has-a
                                                                                                               void insertCoin(VendingMachine product);
 public VendingState getMachineState() {
                                                                                                               void dispenseItem(VendingMachine product);
    return machineState;
public void setMachineState(VendingState machineState) {
    this.machineState = machineState;
                                                                                                                is-a
                                                                                                                                                   is-a
                                                                       public class IdleState implements VendingState{
                                                                                                                                       public class WorkingState implements VendingState{
                                                                          @Override
                                                                          public void insertCoin(VendingMachine product) {
                                                                                                                                          public void insertCoin(VendingMachine product) {
                                                                                                                                              //not doing anything here
                                                                              System.out.println("Coin Inserted");
                                                                              product.setMachineState(new WorkingState());
                                                                                                                                          00verride
                                                                                                                                           public void dispenseItem(VendingMachine product) {
                                                                                                                                              System.out.println("Product dispensed");
                                                                          public void dispenseItem(VendingMachine product) {
```