

CSE-214 Online - 2 (B2)

Structural Design Pattern

A computer system is composed of several basic hardware components, such as a CPU, memory, storage, and a graphics card. Each component has a base price. However, customers can choose to add optional features to these components, such as an *extended warranty*, *installation service*, or *performance boost*, each of which increases the price of the component. Use an appropriate design pattern to add features to components without altering the core classes. The core classes are given below.

```
// Component interface representing the basic hardware component
interface Component {
    double getPrice();
    String getDescription();
}

// Concrete Component representing individual hardware components
class HardwareComponent implements Component {
    private String name;
    private double price;

    public HardwareComponent(String name, double price) {
        this.name = name;
        this.price = price;
    }

    @Override
    public double getPrice() {
        return price;
    }

    @Override
    public String getDescription() {
        return name;
    }
}
```