**Exercise 7: Implementing the Observer Pattern**

**Scenario:**

You are developing a stock market monitoring application where multiple clients need to be notified whenever stock prices change. Use the Observer Pattern to achieve this.

**Steps:**

1. **Create a New Java Project:**

A new Java project is created and is named as **ObserverPatternExample**.

1. **Define Subject Interface:**

An interface **Stock** is created with methods to **register**, **deregister**, and **notify** observers. The implementation code is provided in the wordpad.

1. **Implement Concrete Subject:**

A class **StockMarket** is created that implements **Stock** and maintains a list of observers. The implementation code is provided in the wordpad.

1. **Define Observer Interface:**

An interface Observer is created with a method **update().**The implementation code is provided in the wordpad.

1. **Implement Concrete Observers:**

The classes **MobileApp**, **WebApp** are created that implement Observer. The implementation code is provided in the wordpad.

1. **Test the Observer Implementation:**

A test class is created to demonstrate the registration and notification of observers.The implementation code is provided in the wordpad.