SUPERSET ID-6413402

**TEST OBSERVER PATTERN**

CODE:

import java.util.\*;

// Subject

interface Stock {

void register(Observer o);

void deregister(Observer o);

void notifyObservers();

}

// Observer

interface Observer {

void update(double price);

}

// Concrete Subject

class StockMarket implements Stock {

private List<Observer> observers = new ArrayList<>();

private double stockPrice;

public void setPrice(double price) {

this.stockPrice = price;

notifyObservers();

}

public void register(Observer o) {

observers.add(o);

}

public void deregister(Observer o) {

observers.remove(o);

}

public void notifyObservers() {

for (Observer o : observers) {

o.update(stockPrice);

}

}

}

// Concrete Observers

class MobileApp implements Observer {

public void update(double price) {

System.out.println("Mobile App: Stock price updated to ₹" + price);

}

}

class WebApp implements Observer {

public void update(double price) {

System.out.println("Web App: Stock price updated to ₹" + price);

}

}

// Test

public class TestObserver {

public static void main(String[] args) {

StockMarket stock = new StockMarket();

Observer mobile = new MobileApp();

Observer web = new WebApp();

stock.register(mobile);

stock.register(web);

stock.setPrice(250.50);

stock.setPrice(275.75);

}

}

Output:

Mobile App: Stock price updated to ₹250.5

Web App: Stock price updated to ₹250.5

Mobile App: Stock price updated to ₹275.75

Web App: Stock price updated to ₹275.75

