// Strategy Interface

interface SortingStrategy {

void sort(int[] array);

}

// Concrete Strategies

class BubbleSort implements SortingStrategy {

public void sort(int[] array) {

// Bubble sort algorithm implementation

}

}

class QuickSort implements SortingStrategy {

public void sort(int[] array) {

// Quick sort algorithm implementation

}

}

// Context

class Sorter {

private SortingStrategy strategy;

public Sorter(SortingStrategy strategy) {

this.strategy = strategy;

}

public void setStrategy(SortingStrategy strategy) {

this.strategy = strategy;

}

public void sort(int[] array) {

strategy.sort(array);

}

}

// Usage

public class StrategyPatternDemo {

public static void main(String[] args) {

int[] data = {5, 2, 8, 7, 1};

Sorter sorter = new Sorter(new BubbleSort());

sorter.sort(data); // Uses BubbleSort

sorter.setStrategy(new QuickSort());

sorter.sort(data); // Uses QuickSort

}

}