



Java

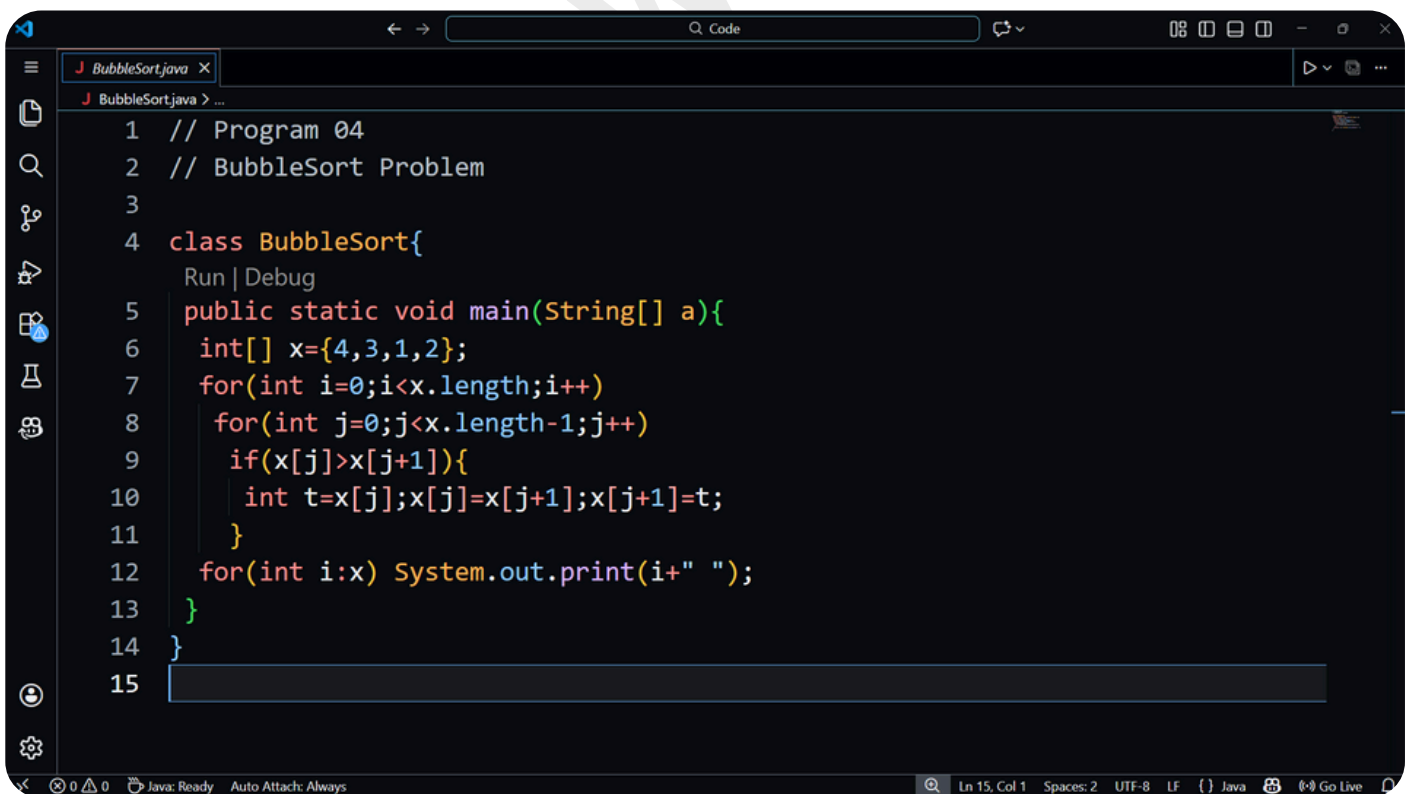
Problem Series

Java Program

Problem Series

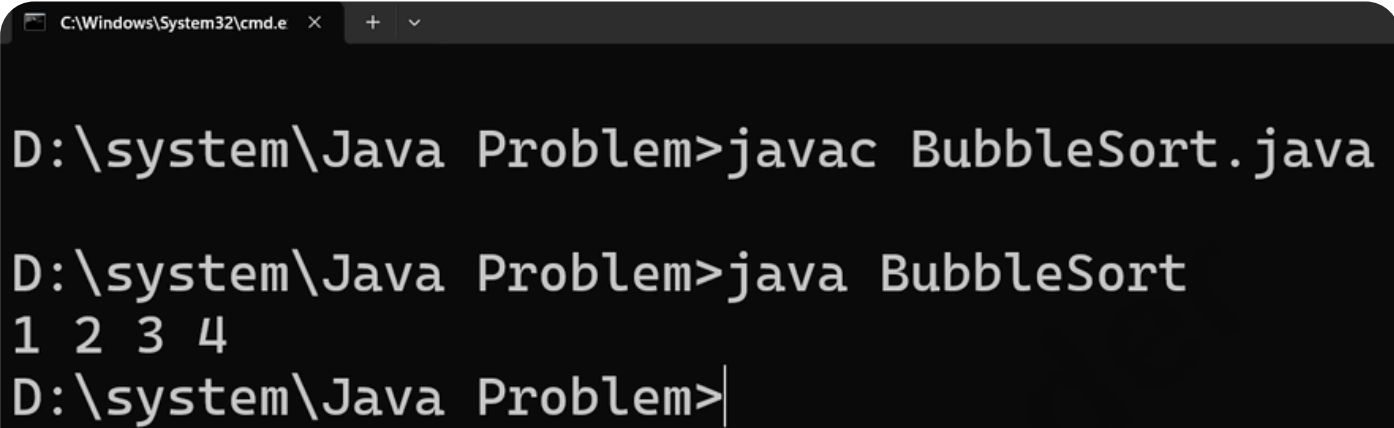
4. BubbleSort Problem

Code

A screenshot of a code editor window titled 'BubbleSort.java'. The code is written in Java and implements a Bubble Sort algorithm. It starts with a comment '// Program 04' and '// BubbleSort Problem'. The class 'BubbleSort' contains a 'main' method. Inside 'main', an integer array 'x' is initialized with values {4, 3, 1, 2}. A nested loop structure is used: the outer loop iterates from 'i=0' to 'x.length-1', and the inner loop iterates from 'j=0' to 'x.length-1-j'. Inside the inner loop, there is a conditional check 'if(x[j]>x[j+1])'. If true, the elements at indices 'j' and 'j+1' are swapped using a temporary variable 't'. After the inner loop, the current state of the array is printed using 'System.out.print(i+" ")'. The code is line-numbered from 1 to 15.

```
1 // Program 04
2 // BubbleSort Problem
3
4 class BubbleSort{
5     public static void main(String[] a){
6         int[] x={4,3,1,2};
7         for(int i=0;i<x.length;i++)
8             for(int j=0;j<x.length-1;j++)
9                 if(x[j]>x[j+1]){
10                     int t=x[j];x[j]=x[j+1];x[j+1]=t;
11                 }
12         for(int i:x) System.out.print(i+" ");
13     }
14 }
15
```

Output



A screenshot of a Windows command prompt window. The title bar shows 'C:\Windows\System32\cmd.e' with a close button and window controls. The command prompt shows the following sequence of commands and output:

```
D:\system\Java Problem>javac BubbleSort.java
D:\system\Java Problem>java BubbleSort
1 2 3 4
D:\system\Java Problem>|
```



Thank you !
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