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1  /* PRACTICAL-11: a) Write a JavaScript to get the volume of a Cylinder with four decimal places using object
   classes. [Hint: Volume of a cylinder :  $V = \pi r^2 h$ , where r is the radius and h is the height of the cylinder.]
2  b) Write a Bubble Sort algorithm in JavaScript using OOP concept.
3  [Bonus: Create a php page which take names of students. List the name using the algorithm developed in this
   practical.]
4
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8
9  // CODE:
10
11 // I. Volume of Cylinder
12 class Cylinder {
13     constructor(radius, height) {
14         this.radius = radius;
15         this.height = height;
16     }
17
18     getVolume() {
19         let volume = Math.PI * Math.pow(this.radius, 2) * this.height;
20         return volume.toFixed(4);
21     }
22 }
23 let cylinder = new Cylinder(11,30);
24 console.log("--> Volume of Cylinder:", cylinder.getVolume());
25
26 // II. Bubble Sort
27 class BubbleSort {
28     static sort(arr) {
29         let n = arr.length;
30         for (let i=0; i<n-1; i++) {
31             for (let j=0; j<n-i-1; j++) {
32                 if (arr[j] > arr[j+1]) {
33                     let temp = arr[j];
34                     arr[j] = arr[j+1];
35                     arr[j+1] = temp;
36                 }
37             }
38         }
39         return arr;
40     }
41 }
42
43 let unsortedArray = [79, 8, 1, 11, 4, 5, 30, 4, 7];
44 console.log("--> Unsorted Array:", unsortedArray);
45 let sortedArray = BubbleSort.sort(unsortedArray);
46 console.log("--> Sorted Array:", sortedArray);
47
48 console.log("\n-*-*-*-*END OF PRACTICAL 11-*-*-*")

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