Practical No:09

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Objective: WAP to perform bubble sort over elements in the array.

Code :

```
import java.util.Scanner;

public class _03_BubbleSort {

   static void bubbleSort(int arr[]) {
      int n = arr.length;
      for (int i = 0; i < n - 1; i++)
         for (int j = 0; j < n - i - 1; j++)
            if (arr[j] > arr[j + 1]) {
               int temp = arr[j];
               arr[j] = arr[j + 1];
               arr[j + 1] = temp;
            }
   }
   public static void main(String[] args) {
      Scanner sc = new Scanner(System.in);
      int n;
      System.out.print("Enter the number of array: ");
      n = sc.nextInt();

      int arr[];
      arr = new int[n];
      for (int i = 0; i < arr.length; i++) {
         System.out.print("Enter the arr[" + (i) + "]: ");
         arr[i] = sc.nextInt();
      }

      System.out.println("\nArray before sorting: ");
      for (int i : arr) {
         System.out.print(i+ "\t");
      }

      bubbleSort(arr);
```

```
        System.out.println("\nArray after sorting: ");
        for (int i : arr) {
            System.out.print(i + "\t");
        }

        sc.close();
    }
}
```

Output:

```
PS E:\03 Semester\Java\Assignments\Assignment_02_oct21> cd "e:\03
Semester\Java\Assignments\Assignment_02_oct21\" ; if ($?) { javac
_03_BubbleSort.java } ; if ($?) { java _03_BubbleSort }
Enter the number of array: 5
Enter the arr[0]: 34
Enter the arr[1]: 23
Enter the arr[2]: 4
Enter the arr[3]: 2
Enter the arr[4]: 14

Array before sorting:
34      23      4       2       14
Array after sorting:
2       4       14      23      34
```