# Phase 1 Practice Project – Assisted Practice

**5. Write a program in java implementing the Bubble sort algorithm**

**package** algorithms;

**public** **class** BubbleSort {

**public** **static** **void** bubbleSort(**int**[] arr) {

**int** n = arr.length;

**boolean** swapped;

**for** (**int** i = 0; i < n - 1; i++) {

swapped = **false**;

**for** (**int** j = 0; j < n - i - 1; j++) {

**if** (arr[j] > arr[j + 1]) {

// Swap arr[j] and arr[j + 1]

**int** temp = arr[j];

arr[j] = arr[j + 1];

arr[j + 1] = temp;

swapped = **true**;

}

}

// If no two elements were swapped in inner loop, the array is already sorted

**if** (!swapped) {

**break**;

}

}

}

**public** **static** **void** main(String[] args) {

**int**[] arr = {69, 34, 25, 12, 22, 11, 90};

*bubbleSort*(arr);

System.***out***.println("Sorted array:");

**for** (**int** i : arr) {

System.***out***.print(i + " ");

}

}

}

# OUTPUT:

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