# Phase 1 Practice Project – Assisted Practice

**6. Write a program in java implementing the Insertion sort algorithm.**

**package** algorithms;

**public** **class** InsertionSort {

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

**int** n = arr.length;

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

**int** key = arr[i];

**int** j = i - 1;

// Move elements of arr[0..i-1] that are greater than the key to the right

**while** (j >= 0 && arr[j] > key) {

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

j--;

}

arr[j + 1] = key;

}

}

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

**int**[] arr = {69, 34, 23, 9, 42, 4, 90};

*insertionSort*(arr);

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

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

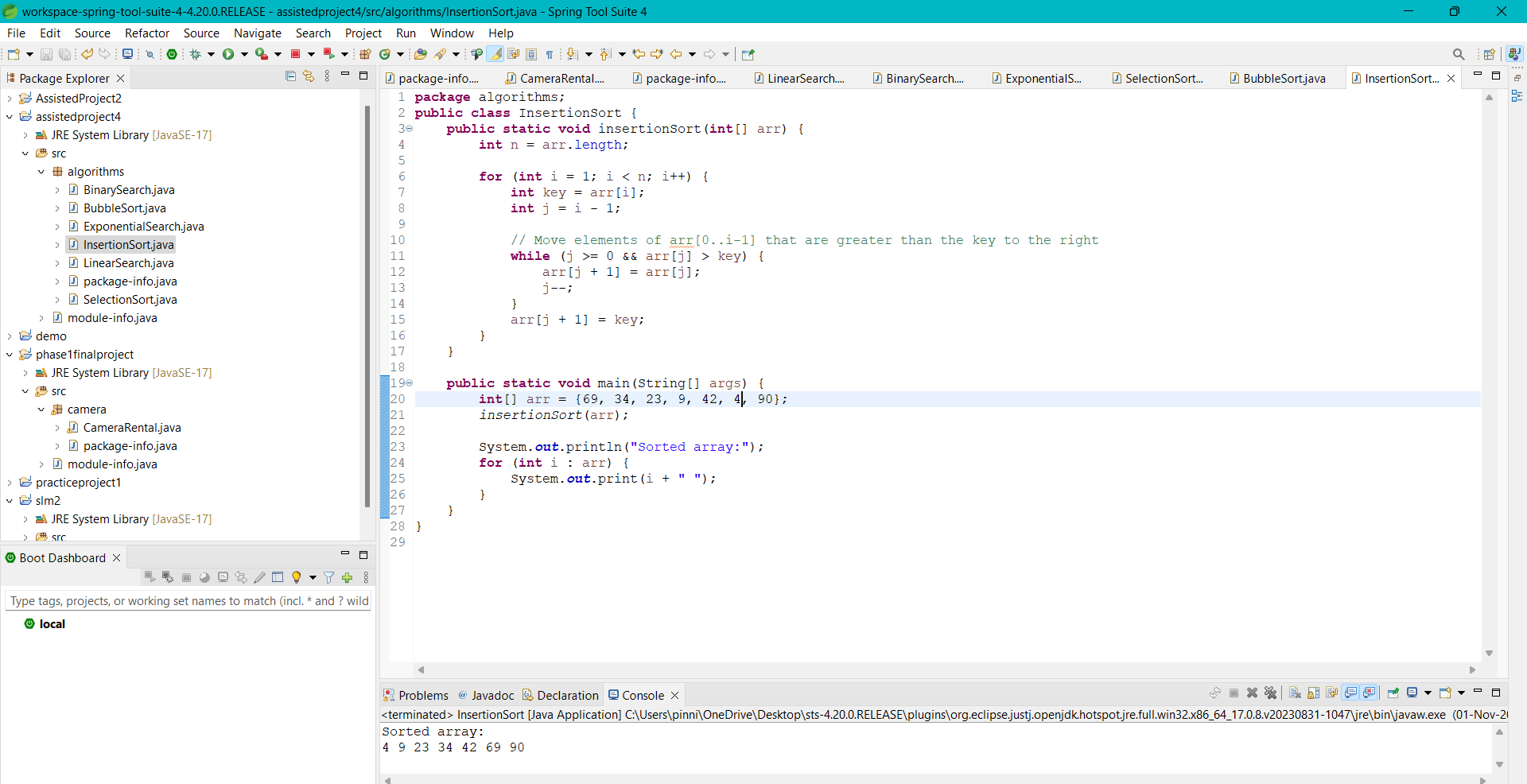
System.***out***.print(i + " ");

}

}

}

# Output:

****