

```
// Java program for implementation of Insertion Sort
public class InsertionSort
{
    /*Function to sort array using insertion sort*/
    void sort(int arr[])
    {
        int n = arr.length;
        int temp;
        for (int i = 1; i < n; i++){
            int j=i;
            while (j>0 && arr[j-1] > arr[j]){
                temp = arr[j-1];
                arr[j-1] = arr[j];
                arr[j] = temp;
                j -= 1;
            }
        }
    }

    /* A utility function to print array of size n*/
    static void printArray(int arr[])
    {
        int n = arr.length;
        for (int i = 0; i < n; ++i)
            System.out.print(arr[i] + " ");

        System.out.println();
    }

    public static void main(String args[])
    {
        int arr[] = { 12, 11, 13, 5, 6 };

        long startTime = System.currentTimeMillis();
        InsertionSort ob = new InsertionSort();
        ob.sort(arr);
        long endTime = System.currentTimeMillis();

        printArray(arr);
    }
}
```



```
        long totalTime = endTime - startTime;

        System.out.println("Total time taken: " + totalTime + " milliseconds")
    }
}
```

