

```
#include <stdio.h>
#include <stdlib.h>
#include <time.h>
//BUBBLE
int main() {
    clock_t start_t, end_t, total_t;
    printf("Enter total numbers \t");
    int n;
    scanf("%d",&n);
    int a[n];
    int i,j,flag,temp;
    flag=1;
    for(i=0;i<n;i++) {
        a[i] = i;//(rand()%n*10) +1;
    }
    start_t = clock();
    int swapCount=0;
    for(i=1;i<n && flag == 1;i++) {
        flag =0;
        for(j=0;j<n-i;j++) {
            if(a[j]>a[j+1]) {
                temp=a[j];
                a[j] = a[j+1];
                a[j+1]=temp;
                flag = 1;
                swapCount++;
            }
        }
    }
    end_t = clock();
    for(i=0;i<n;i++) {
        printf("%d \n",a[i]);
    }
    printf("Total Swapped: %d \n",swapCount++);
    total_t = ((double)(end_t - start_t) / CLOCKS_PER_SEC)*CLOCKS_PER_SEC;
    printf("Total time taken by CPU: %f\n", (double)total_t/(double)CLOCKS_PER_SEC);
}
```