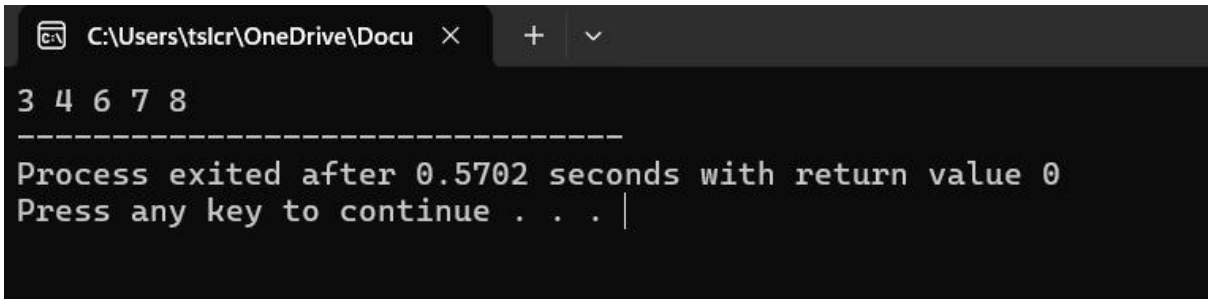
28. Write a C program to arrange a series of numbers using Merge Sort .

```
#include <stdio.h>
void merge(int a[], int l, int m, int r) {
   int i = l, j = m+1, k = 0, b[100];
   while (i <= m && j <= r)
      b[k++] = (a[i] < a[j]) ? a[i++] : a[j++];
   while (i <= m) b[k++] = a[i++];
   while (j <= r) b[k++] = a[j++];
   for (i = l, k = 0; i <= r; i++, k++) a[i] = b[k];
}
void mergeSort(int a[], int l, int r) {
   if (l < r) {
      int m = (l + r)/2;
      mergeSort(a, l, m);
      mergeSort(a, m+1, r);
      merge(a, l, m, r);
   }
}
int main() {
   int a[] = {8, 4, 3, 7, 6}, n = 5;
   mergeSort(a, 0, n-1);
   for (int i = 0; i < n; i++) printf("%d ", a[i]);
   return 0;
}
```

OUTPUT:


C:\Users\tslcr\OneDrive\Docu
3 4 6 7 8

Process exited after 0.5702 seconds with return value 0
Press any key to continue . . .