

## Assignment 3

### Description:

Program takes an input that contain random numbers and by multi-threading sorts them by using Merge Sort Algorithm.

### Compilation:

Program uses the pthread.h library so the linker of the compiler (gcc) needs specific arguments to compile.

- -lpthread for pthread.h

So the command needed to compile program is :

```
gcc -Wall -g name_of_file.c -o name_of_exec -lpthread
```

In our program:

```
gcc -Wall -g External_Merge_Sort.c -o exms -lpthread
```

### Test Cases:

To test the program we are using the following files :

Random Numbers:

- random\_50.txt
- input.txt

### Execution:

The executable file takes as Arguments the Test Cases File we are checking.

So the command to execute the program is :

```
./exms test_file
```