

Program to create two threads using pthreads and to split a list and sort them using the threads (divide and conquer)

```
#include <stdio.h>
#include <pthread.h>

int list[10], temp;
void * sort(void *index)
{
    if((int)index==0)
        printf("Thread 1:");
    else
        printf("Thread 2:");
    int i,j;
    for(i=0;i<(int)index+5;i++)
        for(j=0;j<(int)(index+5)-i-1;j++)
        {
            if(list[j]>list[j+1])
            {
                temp=list[j];
                list[j]=list[j+1];
                list[j+1]=temp;
            }
        }
    for(i=(int)index;i<(int)index+5;i++)
        printf("%d\t", list[i]);
    printf("\n");
    pthread_exit(NULL);
}

int main(void)
{
    int i;
    for(i=0;i<10;i++)
        scanf("%d",&list[i]);
    pthread_t tid1;
    pthread_t tid2;
    pthread_create(&tid1, NULL, sort, 0); // thread to sort list from 0 to 4
    pthread_create(&tid1, NULL, sort, 5); // thread to sort list from 5 to 9
    pthread_join(tid1, NULL);
    pthread_join(tid2, NULL);
    return 0;
}
```