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KONUSU: Linux thread senkronizasyonu ve prosesler arası iletişim

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1- Özet

In this project I am reading data from data.txt file recursively till negative number is save in data file.

The numbers came from file being read by **threadReader** function, send to **threadCalculator** which take its square and add that square to general addition which will be printed to screen every time.

2- Proje Konusu

The main perpose of this program is to implement an algorithm that do the follow:

reader :

reads data from data.txt file

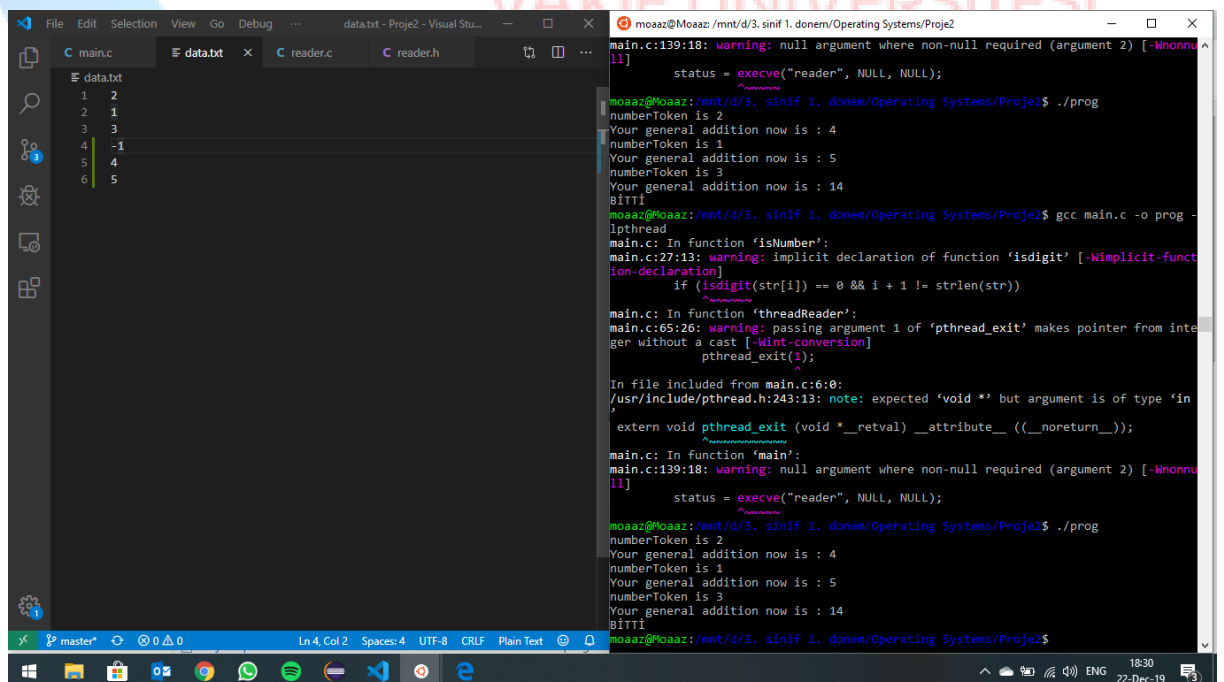
readThread:

reads from data, control these numbers if negative exit the whole program.

calculateThred:

gets numbers from readThread takes its square and add it to general addition, which will be printed to screen at every adding time.

3- Proje Çıktıları ve Başarı Ölçütleri



```
File Edit Selection View Go Debug ... data.txt - Proj2 - Visual Stu...
C main.c data.txt x reader.c reader.h
1 2
2 2
3 3
4 -1
5 4
6 5

moaaz@Moaaz:/mnt/d/3. sinif 1. donem/Operating Systems/Proje2$ ./prog
numberToken is 2
Your general addition now is : 4
numberToken is 1
Your general addition now is : 5
numberToken is 3
Your general addition now is : 14
BITTI
moaaz@Moaaz:/mnt/d/3. sinif 1. donem/Operating Systems/Proje2$ gcc main.c -o prog -lpthread
main.c: In function 'isNumber':
main.c:27:13: warning: implicit declaration of function 'isdigit' [-Wimplicit-function-declaration]
    if (isdigit(str[i]) == 0 && i + 1 != strlen(str))
        ^
main.c: In function 'threadReader':
main.c:65:26: warning: passing argument 1 of 'pthread_exit' makes pointer from integer without a cast [-Wint-conversion]
    pthread_exit(1);
                   ^
In file included from main.c:6:0:
/usr/include/pthread.h:243:13: note: expected 'void **' but argument is of type 'int'
extern void pthread_exit (void * __retval) __attribute__((__noreturn__));
main.c: In function 'main':
main.c:139:18: warning: null argument where non-null required (argument 2) [-Wnonnull]
    status = execve("reader", NULL, NULL);
                   ^
moaaz@Moaaz:/mnt/d/3. sinif 1. donem/Operating Systems/Proje2$ ./prog
numberToken is 2
Your general addition now is : 4
numberToken is 1
Your general addition now is : 5
numberToken is 3
Your general addition now is : 14
BITTI
moaaz@Moaaz:/mnt/d/3. sinif 1. donem/Operating Systems/Proje2$
```

4- Proje Süresince Yapılanlar

- First the read program executed from a to z and this took much long, then when executing threads it take less than first one as most of operations were executed.
- The project is uploaded to github link provided, as it can be traceable for everyone.
[Linux thread senkronisation and communication between processes](#)
- Make file operations and report were the last tasks did during that project.

5- Ek Açıklamalar

During this project the most challenge tasks was to get, operate and handing in fork, pipe and threads together through command line window using Objective-c programming language.

I think it's because I had to handle that code with memory directly my self knowing every inch of the memory, what have and what haven't, also what have but not for use and so on.

That was a very good experience for me to do such a project

6- Kaynakça

- <https://github.com/>
- <https://askubuntu.com/>
- <https://www.quora.com/>
- <https://stackoverflow.com/>

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