

Functions in my homework:

```
void addStudentGrade(char *name, char *grade, char *filename);
void searchStudent(char *name, char *filename);
void sortAll(char *filename);
void showAll(char *filename);
void listGrades(char *filename);
void useage();
void listSome(int numofEntries, int pageNumber, char *filename);
void logging(char *message);
void gtuStudentGrades(char *filename)
```

Description of functions:

1-MAIN

In Main, I receive input from the user in an infinite loop with while. If it is “stop”, it exits at the terminal. The first commend determines the action I will make.

I DISCRIMINATE ACCORDING TO QUOTE MARKS IN OTHER PLACES

example: addStudentGrade “arife yurtseven” “AA” “grades.txt”

2-)gtuStudentGrades

I create a child process with fork. I create a file with the create system call.

example: gtuStudentGrades “grades.txt”

3-)addStudentGrades

I create a child process with fork. I open the file. I create a buffer and write the name and score entered here.

At the same time, the process to the log file continues by calling the “logging” function.

I check for file opening errors.

example: addStudentGrade “arife yurtseven” “AA” “grades.txt”

4)searcStudent

I create a child process with fork. I open the file. First I read the file and keep it in variable. Afterwards, I loop through the read data and search for the desired name. I separate the data I read from the file into tokens as name and grade, respectively. I find the name and type it into the terminal.

example: searcStudent “arife yurtseven” “grades.txt”

5-)SortAlll (I list the names alphabetically)

I create a child process with fork. I open the file. First I read the file and keep it in variable. Afterwards, I sort the names alphabetically using the Qsort function, looping through the read data.

example: sortAll "grades.txt"

6-)showAll

Reads all data from the file and prints it to the terminal

example: showAll "grades.txt"

7-)listGrades

I am listing the top five students. I count 5 students with a "count" variable. I calculate the bytes of the entire file, then I calculate the bytes of the first five names. This way I can suppress the first 5 people.

example : listGrades "grades.txt"

8-)listSome

Verilen bilgiler ile başlangıç satırını ve bitiş satırını hesaplıyorum.

$\text{Startline} = (\text{pagenumber} - 1) * \text{numofentries}$

$\text{Endline} = \text{pagenumber} * \text{numberofentries}$

9-)usage

It prints how the commands work

example:gtuStudentGrades

GTUSTUDENTGRADES /ADDSTUDENT/LOG.TXT

```
arife@LAPTOP-SRROEDP3:/mnt/c/Users/LENOVO/Desktop/210104004294_ArifeYURTSEVEN_sytem$ make all
gcc main.c
./a.out
gtuStudentGrades "grades.txt"
addStudentGrade "Arife Yurtseven" "AA" "grades.txt"
addStudentGrade "Emir Gunay" "AA" "grades.txt"
addStudentGrade "Elif Deniz" "BA" "grades.txt"
addStudentGrade "Arif Dikmen" "AA" "grades.txt"
addStudentGrade "Burak gunay" "DC" "grades.txt"
addStudentGrade "ozan uzak" "BB" "grades.txt"
addStudentGrade "sibel yilmaz" "DD" "grades.txt"
addStudentGrade "Yusuf deneme" "CC" "grades.txt"
```

```
grades.txt X
C: > Users > LENOVO > Desktop >
1 Arife Yurtseven,AA
2 Emir Gunay,AA
3 Elif Deniz,BA
4 Arif Dikmen,AA
5 Burak gunay,DC
6 ozan uzak,BB
7 sibel yilmaz,DD
8 Yusuf deneme,CC
9
10
```

```
main.c 2 grades.txt log.txt X
> Users > LENOVO > Desktop > 210104004294_A C:\Users\LENOVO\Desktop
1 File created
2 Arife Yurtseven AA grades.txt Student grade added
3 Emir Gunay AA grades.txt Student grade added
4 Elif Deniz BA grades.txt Student grade added
5 Arif Dikmen AA grades.txt Student grade added
6 Burak gunay DC grades.txt Student grade added
7 ozan uzak BB grades.txt Student grade added
8 sibel yilmaz DD grades.txt Student grade added
9 Yusuf deneme CC grades.txt Student grade added
10
```

SEARCHSTUDENT

```
searchStudent "Arif Dikmen" "grades.txt"
Arif Dikmen,AA
searchStudent "Arife Yurtseven" "grades.txt"
Arife Yurtseven,AA
```

SHOWALL

```
showAll "grades.txt"
Arife Yurtseven,AA
Emir Gunay,AA
Elif Deniz,BA
Arif Dikmen,AA
Burak gunay,DC
ozan uzak,BB
sibel yilmaz,DD
Yusuf deneme,CC
```

```
grades.txt X
C: > Users > LENOVO > Desktop >
1 Arife Yurtseven,AA
2 Emir Gunay,AA
3 Elif Deniz,BA
4 Arif Dikmen,AA
5 Burak gunay,DC
6 ozan uzak,BB
7 sibel yilmaz,DD
8 Yusuf deneme,CC
9
10
```

SORTALL

```
sortAll "grades.txt"
Arif Dikmen,AA
Arife Yurtseven,AA
Burak gunay,DC
Elif Deniz,BA
Emir Gunay,AA
Yusuf deneme,CC
ozan uzak,BB
sibel yilmaz,DD
```

```
grades.txt X
C: > Users > LENOVO > Desktop >
1 Arife Yurtseven,AA
2 Emir Gunay,AA
3 Elif Deniz,BA
4 Arif Dikmen,AA
5 Burak gunay,DC
6 ozan uzak,BB
7 sibel yilmaz,DD
8 Yusuf deneme,CC
9
10
```

LISTGRADES-LISTSOME

```
listSome "3""2""grades.txt"
Arif Dikmen,AA
Burak gunay,DC
ozan uzak,BB

listGrades "grades.txt"
Arife Yurtseven,AA
Emir Gunay,AA
Elif Deniz,BA
Arif Dikmen,AA
Burak gunay,DC

grades.txt X
C: > Users > LENOVO > Desktop >
1 Arife Yurtseven,AA
2 Emir Gunay,AA
3 Elif Deniz,BA
4 Arif Dikmen,AA
5 Burak gunay,DC
6 ozan uzak,BB
7 sibel yilmaz,DD
8 Yusuf deneme,CC
9
10
```

USAGE

```
gtuStudentGrades
to add to the file: addStudentGrade "name surname" "grade" "filename"
to search for students: searchStudent "name surname" "filename"
to see all students name in alphabetical order: sortAll "filename"
to see all students: showAll "filename"
to list the top five students: lstGrades "filename"
to list a specific number of students: lstSome "numofEntries" "pageNumber" "filename"
to create file: gtuStudentGrades "filename"
```

EXIT

```
to list a specific number of students: lstSome "numofEntries" "pageNumber" "filename"
to create file: gtuStudentGrades "filename"
stop
arife@LAPTOP-SRROEDP3:/mnt/c/Users/LENOVO/Desktop/210104004294_ArifeYURTSEVEN_sytem$
```

```
grades.txt  log.txt  X  C main.c  2
C: > Users > LENOVO > Desktop > 210104004294_ArifeYURTSEVEN_sytem >
1  File created
2  Arife Yurtseven AA grades.txt Student grade added
3  Emir Gunay AA grades.txt Student grade added
4  Elif Deniz BA grades.txt Student grade added
5  Arif Dikmen AA grades.txt Student grade added
6  Burak gunay DC grades.txt Student grade added
7  ozan uzak BB grades.txt Student grade added
8  sibel yilmaz DD grades.txt Student grade added
9  Yusuf deneme CC grades.txt Student grade added
10 Arif Dikmen grades.txt Student found
11 Arife Yurtseven grades.txt Student found
12 All students shown
13 All students sorted
14 First 5 students listed
15 First 5 students listed
16 Some students listed
17 exit
```

ERROR

```
KOMUT
Invalid command
listSome "5" "2"
Invalid number of arguments for lstSome command
searchStudent "elif deniz"
Invalid number of arguments for searchStudent command
searchStudent "alper" "grades.txt"
Student not found.

```

```
main.c  2  log.txt  X
C: > Users > LENOVO > Desktop > 210104004294_ArifeYURTSEVEN_sytem > log.txt
18 Invalid command
19 Invalid number of arguments for lstSome command
20 Invalid number of arguments for searchStudent command
21 alper grades.txt Student not found
22
```