CSE 344 Report

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The program starts with $ make. When commands are entered, a log file is created. Exit is done with q. Log and out file is deleted.

GtuStudentGrades "filename"

This command creates the entered filename.

```
Shell (q for exit)>gtuStudentGrades "testReport.txt"
File created: testReport.txt
Shell (q for exit)>
```

AddStudent

This function takes NameSurname, TokenCount (for NameSurname because a person can have more than one name.), Grade, Filename parameters.

Then the file is opened. If it is not opened, an error is given and a log is made. According to the incoming parameter, it is written to the file as Name Surname, Grade. Then, when the student is added, a child is opened in the child for log..

```
aykut@DESKTOP-1C4DO09:/mnt/c/Users/Aykut/Desktop/System/homeworks/hw1$ make all
gcc main.c
./a.out
Shell (q for exit)>addStudentGrade "Aykut Sert" "AA" "grade.txt"
Aykut Sert , AA added to grade.txt
Shell (q for exit)>
```

SearchStudent

This function takes NameSurname and filename parameters. If the file is not opened, an error is given. Log is made. If the student is found, the name, surname, grade and number of lines are printed to the terminal..

```
aykut@DESKTOP-1C4DO09:/mnt/c/Users/Aykut/Desktop/System/homeworks/hw1$ make all
gcc main.c
./a.out
Shell (q for exit)>addStudentGrade "Aykut Sert" "AA" "grade.txt"
Aykut Sert , AA added to grade.txt
Shell (q for exit)>searchStudent "Cevdet Yılmaz" "grade.txt"
Cevdet Yılmaz isimli kişi, grade.txt dosyasının 15. satırında bulundu. Grade: CC

Shell (q for exit)>
```

SortAll

This function takes the filename parameter. And asks the user for name-grade-ascending-descending inputs. According to the given answer, it sorts and prints to the terminal.

```
Shell (q for exit)>sortAll "grade.txt"
Enter sorting method:
1. Name ascending order
2. Name descending order
3. Grade ascending order
4. Grade descending order
4
Grade Descending Order
Feridun Taha Açıkyürek,DC
Ahmet Yılmaz Can Kurt,DC
Ilkay Bolat,DC
Emirhan Yılmaz,DC
Cemil Sert,DC
Kaan Sert,DC
Engin Sert,DC
Ismail Deniz,DC
Cevdet Yılmaz,CC
Burak Efe Deniz,CB
Mehmet Yılmaz,CB
Mehmet Yılmaz,CB
Kerem Sert,BA
Ebu Sönmez,BA
Aykut Sert,AA
Shell (q for exit)>
```

```
Shell (q for exit)>sortAll "grade.txt"
Enter sorting method:
1. Name ascending order
2. Name descending order
3. Grade ascending order
4. Grade descending order
2
Mehmet Yılmaz,CB
Mehmet Yılmaz,CB
Kerem Sert,BA
Kaan Sert,DC
Ismail Deniz,DC
Ilkay Bolat,DC
Feridun Taha Açıkyürek,DC
Engin Sert,DC
Emirhan Yılmaz,DC
Ebu Sönmez,BA
Cevdet Yılmaz,CC
Cemil Sert,DC
Burak Efe Deniz,CB
Aykut Sert,AA
Ahmet Yılmaz Can Kurt,DC
```

```
Shell (q for exit)>sortAll "grade.txt"
Enter sorting method:
1. Name ascending order
2. Name descending order
3. Grade ascending order
4. Grade descending order
3
Grade Ascending Order
Aykut Sert,AA
Kerem Sert,BA
Ebu Sönmez,BA
Burak Efe Deniz,CB
Mehmet Yılmaz,CB
Mehmet Yılmaz,CB
Cevdet Yılmaz,CC
Feridun Taha Açıkyürek,DC
Ahmet Yılmaz Can Kurt,DC
Ilkay Bolat,DC
Emirhan Yılmaz,DC
Cemil Sert,DC
Kaan Sert,DC
Engin Sert,DC
Ismail Deniz,DC
```

```
Shell (q for exit)>sortAll "grade.txt"
Enter sorting method:
1. Name ascending order
2. Name descending order
3. Grade ascending order
4. Grade descending order
1
Ahmet Yılmaz Can Kurt,DC
Aykut Sert,AA
Burak Efe Deniz,CB
Cemil Sert,DC
Cevdet Yılmaz,CC
Ebu Sönmez,BA
Emirhan Yılmaz,DC
Engin Sert,DC
Feridun Taha Açıkyürek,DC
Ilkay Bolat,DC
Ismail Deniz,DC
Kaan Sert,DC
Kerem Sert,BA
Mehmet Yılmaz,CB
Mehmet Yılmaz,CB
```

DisplayStudent

a)ShowAll = this function takes the filename parameter and prints all data to the screen..

```
Shell (q for exit)>showAll "grade.txt"
Aykut Sert,AA
Burak Efe Deniz,CB
Kerem Sert,BA
Feridun Taha Açıkyürek,DC
Ahmet Yılmaz Can Kurt,DC
Ilkay Bolat,DC
Emirhan Yılmaz,DC
Cemil Sert,DC
Kaan Sert,DC
Engin Sert,DC
Ismail Deniz,DC
Mehmet Yılmaz,CB
Mehmet Yılmaz,CB
Ebu Sönmez,BA
Cevdet Yılmaz,CC
Shell (q for exit)>
```

b)listGrades =this function takes the filename parameter and prints the first 5 entries on the screen.

```
Shell (q for exit)>listGrades "grade.txt"
Aykut Sert,AA
Burak Efe Deniz,CB
Kerem Sert,BA
Feridun Taha Açıkyürek,DC
Ahmet Yılmaz Can Kurt,DC
Shell (q for exit)>
```

c)listSome => this function takes the parameters entry number, page number and filename and prints the data on the screen according to the page number and entry number..

```
Shell (q for exit)>listSome "5" "2" "grade.txt"
Ilkay Bolat,DC
Emirhan Yılmaz,DC
Cemil Sert,DC
Kaan Sert,DC
Engin Sert,DC
Shell (q for exit)>listSome "3" "2" "grade.txt"
Feridun Taha Açıkyürek,DC
Ahmet Yılmaz Can Kurt,DC
Ilkay Bolat,DC
Shell (q for exit)>listSome "2" "3" "grade.txt"
Ahmet Yılmaz Can Kurt,DC
Ilkay Bolat,DC
Shell (q for exit)>
```

Logging

This function makes a log for each command. It prints the success and failure status to the file. It also writes the commands and the parameters entered to the file.

```
Fri Mar 22 15:23:47 2024 Executed command: sortAll grade.txt
Fri Mar 22 15:23:48 2024 Done Successfully Name Ascending Order

Fri Mar 22 15:23:59 2024 Executed command: sortAll grade.txt
Fri Mar 22 15:24:02 2024 Done Successfully Grade Ascending Order

Fri Mar 22 15:24:41 2024 Executed command: sortAll grade.txt
Fri Mar 22 15:24:42 2024 Done Successfully Grade Ascending Order

Fri Mar 22 15:24:45 2024 Executed command: sortAll grade.txt
Fri Mar 22 15:24:46 2024 Done Successfully Name Ascending Order

Fri Mar 22 15:24:53 2024 Executed command: sortAll grade.txt
Fri Mar 22 15:24:54 2024 Done Successfully Name Descending Order

Fri Mar 22 15:24:56 2024 Executed command: sortAll grade.txt
Fri Mar 22 15:24:57 2024 Done Successfully Grade Descending Order

Fri Mar 22 15:29:26 2024 Executed command: showAll grade.txt
Fri Mar 22 15:29:26 2024 Done Successfully

Fri Mar 22 15:30:59 2024 Executed command: listGrades
Fri Mar 22 15:30:59 2024 Error: Invalid number of arguments

Fri Mar 22 15:31:06 2024 Executed command: listGrades grade.txt
Fri Mar 22 15:31:06 2024 Done Successfully
```

Usage

If gtuStudentGrades is entered without arguments, all commands and their goals are printed.

```
Shell (q for exit)>gtuStudentGrades
gtuStudentGrades without arguments : print all instructions
gtuStudentGrades <filename> : create a file
addStudentGrade <Name Surname> <Grade> : Add student grade to file
searchStudent <Name Surname> : Search student grade in file
sortAll <fileName> : Sort all entries in file
showAll <fileName> : Show all entries in file
listGrades <fileName> : List first 5 entries in file
listSome <numofEntries> <pageNumber> <fileName> : List entries between given page
 number and number of entries
Shell (q for exit)>
```