

CSE 344 HW1 Report

To compile the program: make

To run the program: make run

To clean the object and executables: make clean

The program starts and expects input from the user. If the user enters gtuStudentGrades, the program prints the usage info of the program.

```
melihsapmazz@Melih:~/hw1$ make
gcc -Wall -Wextra -c main.c
gcc -Wall -Wextra -o main main.o
melihsapmazz@Melih:~/hw1$ make run
./main
Enter a command: gtuStudentGrades
Create an Empty File          => gtuStudentGrades filename.txt
Append Student Name and Grade to the file => addStudentGrade Name Grade filename.txt
Search Student Name Surname Grade => searchStudent Name filename.txt
Sort All Entries              => sortAll filename.txt
Show All Entries              => showAll filename.txt
List First 5 Entries          => listGrades filename.txt
List Some Entries             => listSome numOfEntries pageNumber filename.txt
```

The screenshot shows the example run of the program and gtuStudentGrades input.

```
Enter a command: gtuStudentGrades test.txt
Enter a command: showAll test.txt
Enter a command: addStudentGrade Erkan Zergeroglu test.txt
Usage: addStudentGrade Name Surname Grade filename.txt
Enter a command: addStudentGrade Erkan Zergeroglu AA test.txt
Enter a command: showAll test.txt
"Erkan Zergeroglu, AA"
Enter a command: addStudentGrade Arif Dikmen BA test.txt
Enter a command: showAll test.txt
"Erkan Zergeroglu, AA"
"Arif Dikmen, BA"
Enter a command: addStudentGrades Melih Sapmaz BB test.txt
Enter a command: showAll test.txt
"Erkan Zergeroglu, AA"
"Arif Dikmen, BA"
Enter a command: showAll test.txt
"Erkan Zergeroglu, AA"
"Arif Dikmen, BA"
Enter a command: addStudentGrade Melih Sapmaz test.txt
Enter a command: showAll test.txt
"Erkan Zergeroglu, AA"
"Arif Dikmen, BA"
Enter a command: addStudentGrade Melih Sapmaz BB test.txt
Enter a command: showAll test.txt
"Erkan Zergeroglu, AA"
"Arif Dikmen, BA"
"Melih Sapmaz, BB"
Enter a command: listGrades test.txt
"Erkan Zergeroglu, AA"
"Arif Dikmen, BA"
"Melih Sapmaz, BB"
```

In this scenario, I created an empty file named "test.txt" and tried to show its content with the showAll command, but it did not print anything because it is empty. Then I tried to add an entry but it warned me because I did not enter grade. Then I entered the entry successfully and showed the file using the showAll command and it printed the content of the file. Then I entered more entries and put them in the file. Then I entered the listGrades command, it is supposed to show 5 elements but it showed 3 elements because it only has 3 elements.

In the next screenshot, you can see how I used sortAll commands. When a user enters the sortAll command, it asks an option from the user to handle the sort operation.

```
Enter a command: sortAll test.txt
Enter an option to sort the file by name or grade
1: Sort by Name Ascending
2: Sort by Grade Ascending
3: Sort by Name Descending
4: Sort by Grade Descending
1
"Arif Dikmen, BA"
"Erkan Zergeroglu, AA"
"Melih Sapmaz, BB"
Enter a command: sortAll test.txt
Enter an option to sort the file by name or grade
1: Sort by Name Ascending
2: Sort by Grade Ascending
3: Sort by Name Descending
4: Sort by Grade Descending
2
"Melih Sapmaz, BB"
"Arif Dikmen, BA"
"Erkan Zergeroglu, AA"
Enter a command: sortAll test.txt
Enter an option to sort the file by name or grade
1: Sort by Name Ascending
2: Sort by Grade Ascending
3: Sort by Name Descending
4: Sort by Grade Descending
3
"Melih Sapmaz, BB"
"Erkan Zergeroglu, AA"
"Arif Dikmen, BA"
Enter a command: sortAll test.txt
Enter an option to sort the file by name or grade
1: Sort by Name Ascending
2: Sort by Grade Ascending
3: Sort by Name Descending
4: Sort by Grade Descending
4
"Erkan Zergeroglu, AA"
"Arif Dikmen, BA"
"Melih Sapmaz, BB"
```

In the next screenshot, I added more entries and entered listSome and listGrade commands.

```
Enter a command: showAll test.txt
"Erkan Zergeroglu, AA"
"Arif Dikmen, BA"
"Melih Sapmaz, BB"
Enter a command: addStudentGrade YusufSinan Akgul CC test.txt
Enter a command: addStudentGrade Yakup Genc DC test.txt
Enter a command: addStudentGrade Ibrahim Sogukpinar FF test.txt
Enter a command: showAll test.txt
"Erkan Zergeroglu, AA"
"Arif Dikmen, BA"
"Melih Sapmaz, BB"
"YusufSinan Akgul, CC"
"Yakup Genc, DC"
"Ibrahim Sogukpinar, FF"
Enter a command: listGrades test.txt
"Erkan Zergeroglu, AA"
"Arif Dikmen, BA"
"Melih Sapmaz, BB"
"YusufSinan Akgul, CC"
"Yakup Genc, DC"
Enter a command: listSome 2 2 test.txt
"Melih Sapmaz, BB"
"YusufSinan Akgul, CC"
Enter a command: listSome 3 1 test.txt
"Erkan Zergeroglu, AA"
"Arif Dikmen, BA"
"Melih Sapmaz, BB"
Enter a command: listSome 5 1 test.txt
"Erkan Zergeroglu, AA"
"Arif Dikmen, BA"
"Melih Sapmaz, BB"
"YusufSinan Akgul, CC"
"Yakup Genc, DC"
```

```
Student Grade Added Successfully.
Thu Mar 21 16:42:03 2024
Student Grade Added Successfully.
Thu Mar 21 16:42:35 2024
Student Grade Added Successfully.
Thu Mar 21 16:42:42 2024
File Opened Successfully During Showing All Entries.
Thu Mar 21 16:43:01 2024
Entries Listed Successfully.
Thu Mar 21 16:43:16 2024
Entries Listed Successfully.
Thu Mar 21 16:43:43 2024
Entries Listed Successfully.
Thu Mar 21 16:43:52 2024
Entries Listed Successfully.
Thu Mar 21 16:44:02 2024
Entries Listed Successfully.
```

Inside of the log.txt.