

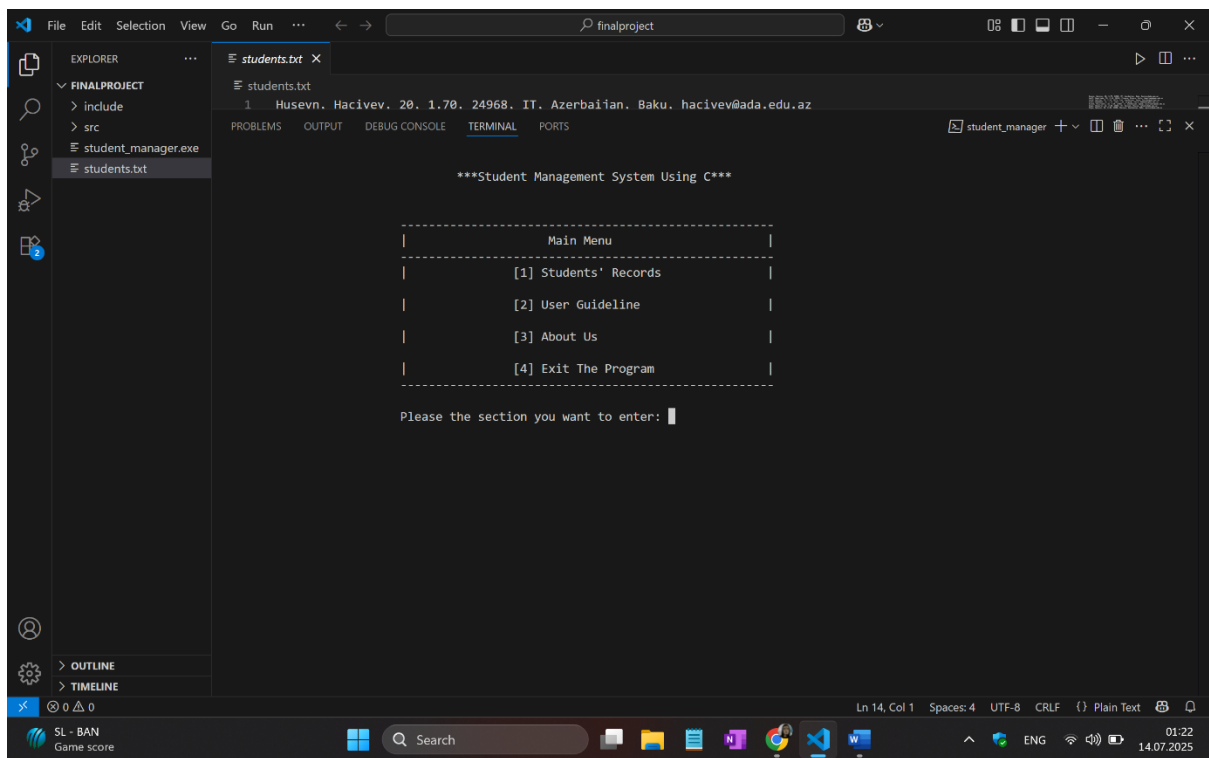
Final Project Guide Book

General Info:

This program is a **Student Management System**, designed to help users manage student records efficiently. It allows adding, listing, editing, deleting, searching, filtering, and sorting student information. The interface is fully terminal-based, with clear formatting and simple navigation.

How to Use the Program:

Hello dear user, after running “exe” file, you will see the **Main Menu**. This menu is starting of our program which everything starts here.



The screenshot shows a Visual Studio Code editor with a terminal window open. The terminal displays the output of a C program. The program title is "Student Management System Using C". The main menu is displayed as follows:

```
***Student Management System Using C***

|-----|
|           Main Menu           |
|-----|
|           [1] Students' Records |
|           [2] User Guideline    |
|           [3] About Us         |
|           [4] Exit The Program  |
|-----|

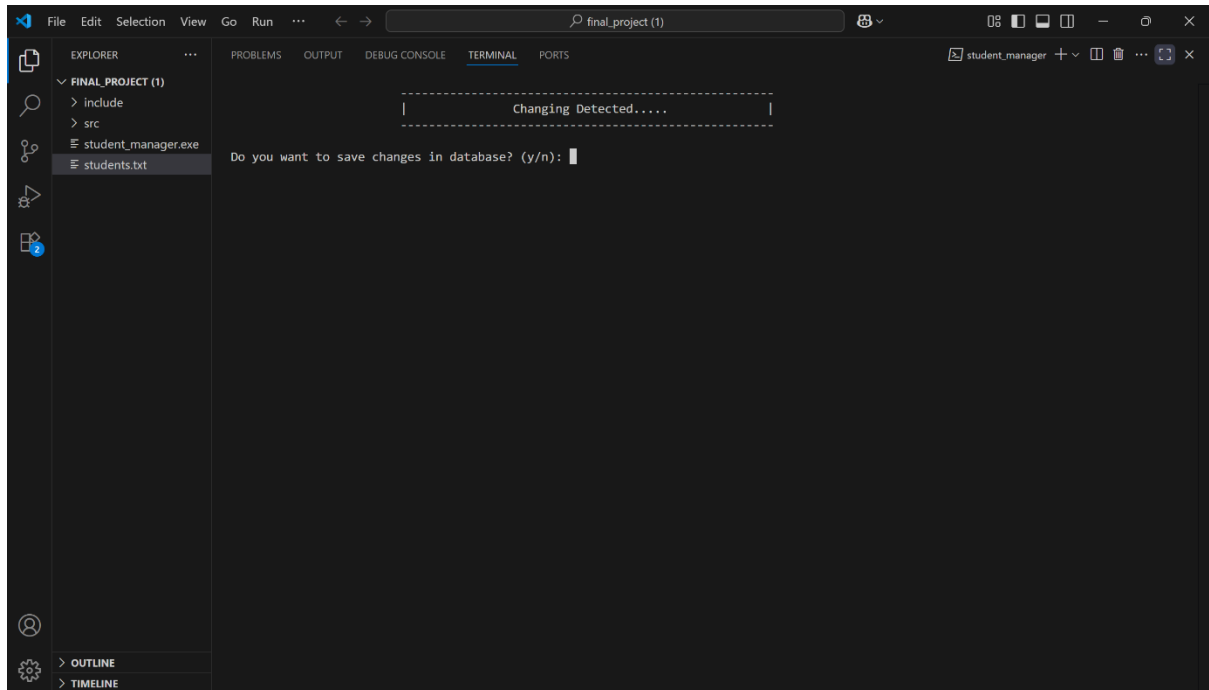
Please the section you want to enter: 
```

The terminal window is titled "student_manager" and shows the file "students.txt" in the Explorer pane. The file content is:

```
1 Husevn. Hacıev. 20. 1.70. 24968. IT. Azerbaijan. Baku. hacivev@ada.edu.az
```

As you can see our interface has so clear and efficient design. We will talk about **First Section** later that is why I want to explain other sections' job. **Second Section's** job is introducing program's rules to the user for better functionality. There are some rules you can read.

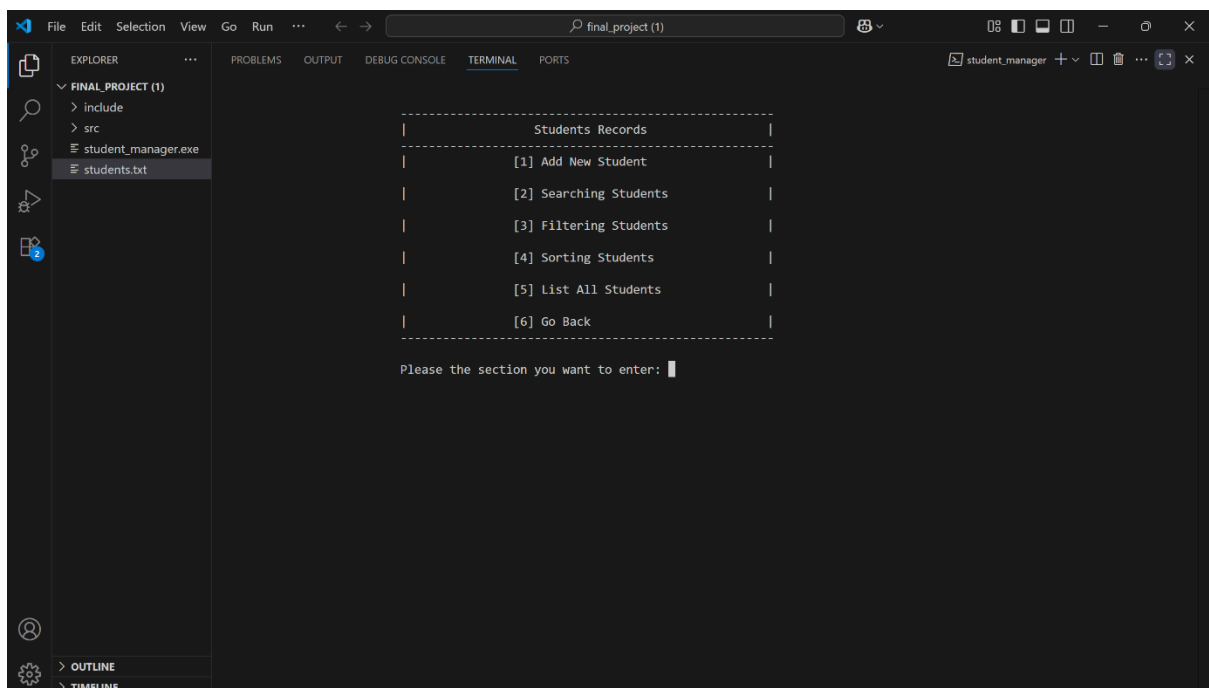
Fourth Section is used for saving the changes in database, when user using program, “adding”, “editing”, and “deleting” functions can change the students’ information. That is why we added this option, if user wants to save changes or not, he or she can use this function for clarify the circumstance. if function detects the diferent database, it asks to user save or not, both option it exits the program.



The screenshot shows a Visual Studio Code window with a terminal open. The Explorer pane on the left shows a project named 'FINAL_PROJECT (1)' with files 'include', 'src', 'student_manager.exe', and 'students.txt'. The terminal window has tabs for 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', 'TERMINAL', and 'PORTS'. The 'TERMINAL' tab is active, displaying the following text:

```
-----  
|           Changing Detected.....           |  
-----  
Do you want to save changes in database? (y/n):-
```

We said that we will explain the **First Section** deeply. When users entered it, they will see 6 Sections like that.



The screenshot shows the same Visual Studio Code window with the terminal. The terminal now displays a menu of options for the 'Students Records' section:

```
-----  
|           Students Records           |  
-----  
|           [1] Add New Student         |  
|           [2] Searching Students      |  
|           [3] Filtering Students      |  
|           [4] Sorting Students        |  
|           [5] List All Students       |  
|           [6] Go Back                 |  
-----  
Please the section you want to enter: 
```

File Edit Selection View Go Run ... ← → final_project (1) 100% student_manager + - ...

EXPLORER ... PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

FINAL_PROJECT (1)

- > include
- > src
- student_manager.exe
- students.txt

OUTLINE

TIMELINE

```
-----
| Please enter the Student's information correctly |
-----

[ 1] Enter Student's First Name: Nazli
-----
[ 2] Enter Student's Last Name: Rehimli
-----
[ 3] Enter Student's Faculty: ComputerScience
-----
[ 4] Enter Student's Country: France
-----
[ 5] Enter Student's City: Paris
-----
[ 6] Enter Student's Age: 18
-----
[ 7] Enter Student's ID (20000 - 30000): 21345
-----
[ 8] Enter Student's GPA (0.00 - 4.00): 3.67
-----
[10] Enter Student's ADA Email: rehimli@ada.edu.az
-----

Your Student Registration is Successfully Finished!!!
-----
GoBack(b)-----AddNewSt(a)

Please Enter: |
```

The image shows a Visual Studio Code interface with a terminal window. The Explorer sidebar on the left displays the project structure for 'FINAL_PROJECT (1)', which includes subfolders 'include' and 'src', and files 'student_manager.exe' and 'students.txt'. The terminal window shows the output of a program, which is a menu for searching students. The menu is enclosed in dashed lines and lists ten options: [1] Search By Name, [2] Search By Surname, [3] Search By Age, [4] Search By GPA, [5] Search By ID, [6] Search By Faculty, [7] Search By Country, [8] Search By City, [9] Search By Email, and [10] Back To Student's Records. Below the menu, the prompt 'Please the section you want to enter:' is displayed, followed by a cursor.

```

-----
|                               |
|           Searching Students   |
|                               |
|-----|-----|
| Please Select the Option You Want to Search Student |
|-----|-----|
| [1] Search By Name | [2] Search By Surname |
|-----|-----|
| [3] Search By Age | [4] Search By GPA |
|-----|-----|
| [5] Search By ID | [6] Search By Faculty |
|-----|-----|
| [7] Search By Country | [8] Search By City |
|-----|-----|
| [9] Search By Email |
|-----|-----|
| [10] Back To Student's Records |
|-----|-----|
|
| Please the section you want to enter: |

```

```
File Edit Selection View Go Run ... < -> final_project (1)
EXPLORER PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
FINAL_PROJECT (1)
  > include
  > src
  student_manager.exe
  students.txt
  OUTLINE
  TIMELINE

-----
| Searching Students by Age |
-----

Please Enter Student's Age (17 - 70): 19

[1] Sahil Bagirzade | Age: 19 | GPA: 2.10 | ID: 20364 | Faculty: Finance
    Location: Paris, France | Email: bagirzade@ada.edu.az
-----

[2] Saleh Hacıyev | Age: 19 | GPA: 2.10 | ID: 29374 | Faculty: Law
    Location: Ganja, Azerbaijan | Email: hacıyev@ada.edu.az
-----

[3] Nicat Ezizli | Age: 19 | GPA: 2.89 | ID: 21975 | Faculty: Architecture
    Location: Rome, Italy | Email: ezizli@ada.edu.az
-----

Total Number of Students Found: 3

Please enter the number of the student to manage (1-3): 2
| Delete(d) Edit(e) Back(b) |
-----

Please enter a letter: b
```

```
File Edit Selection View Go Run ... < -> final_project (1)
EXPLORER PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
FINAL_PROJECT (1)
  > include
  > src
  student_manager.exe
  students.txt
  OUTLINE
  TIMELINE

-----
| Searching Students |
-----

| Please Select the Option You Want to Edit Student's information |
-----

[1] Edit The Name: Saleh
[2] Edit The Surname: Hacıyev
[3] Edit The Age: 19
[4] Edit The GPA: 2.100000
[5] Edit The ID: 29374
[6] Edit The Faculty: Law
[7] Edit The Country: Azerbaijan
[8] Edit The City: Ganja
[9] Edit The Email: hacıyev@ada.edu.az
-----

| [10] Back To Searching The Students |
-----

Please the section you want to enter: b
```

We can talk about **Third Section** which contains filtering students multiple features like name, surname, age, etc. in one attempt. After finishing the filtering students, users can start again when choose the 0 for stoping and starting with new array of database. If users choose 1, program remembers 3 students and starts filtering them until user finish.

Furthermore, I can demonstrate **Fourth Section**, doing sorting students again every contact information with giving choice like Ascending or Descending. I don't want to talk about much, you can see from screenshots.

The screenshot shows a Visual Studio Code editor with a C project named 'FINAL_PROJECT (1)'. The Explorer panel on the left lists the project files: .vscode, include, src (main.c, students.c, utils.c), student_manager.exe, and students.txt. The Terminal panel on the right displays the output of the program, which is a menu for sorting student records. The menu options are:

```

-----
|                               |
|           Sorting Students    |
|                               |
|-----|-----|
| Please Select the Option You Want to Sorting Students |
|-----|-----|
| [1] Sort  By Name           | [2] Sort By Surname       |
|-----|-----|
| [3] Sort  By Age            | [4] Sort  By GPA         |
|-----|-----|
| [5] Sort  By ID             | [6] Sort  By Faculty     |
|-----|-----|
| [7] Sort  By Country        | [8] Sort  By City        |
|-----|-----|
| [9] Sort  By Email          |
|-----|-----|
| [10] Back To Student's Records |
|-----|-----|

Please the section you want to enter: 1

-----
|           Ascending Order(1) or Descending Order(2)           |
|-----|-----|

Enter your choice:
  
```

The screenshot shows the Visual Studio Code interface with the 'TERMINAL' tab active. The terminal output displays the results of a program that prints sorted student data. The output is as follows:

```
-----  
| Sorted Students |  
-----  
  
Total Number of Students: 13  
-----  
[1] Amina Heydarova | Age: 20 | GPA: 3.50 | ID: 20465 | Faculty: Law  
    Location: Milan, Italy | Email: heydarova@ada.edu.az  
-----  
[2] Babek Balayev | Age: 23 | GPA: 4.00 | ID: 25468 | Faculty: Business  
    Location: Tbilisi, Georgia | Email: balayev@ada.edu.az  
-----  
[3] Dilare Misirxanli | Age: 18 | GPA: 2.40 | ID: 21968 | Faculty: IT  
    Location: Agdam, Azerbaijan | Email: misirxanli@ada.edu.az  
-----  
[4] Elgun Gaziyeu | Age: 23 | GPA: 2.45 | ID: 24586 | Faculty: Business  
    Location: Baku, Azerbaijan | Email: gaziyeu@ada.edu.az  
-----  
[5] Elgun Shukurov | Age: 21 | GPA: 2.40 | ID: 25687 | Faculty: IT  
    Location: Moscow, Russia | Email: salayev@ada.edu.az  
-----  
[6] Huseyn Hacıyeva | Age: 20 | GPA: 1.70 | ID: 24968 | Faculty: IT  
    Location: Baku, Azerbaijan | Email: hacıyeva@ada.edu.az  
-----  
[7] Mehmed Qurbanzade | Age: 21 | GPA: 4.00 | ID: 24586 | Faculty: Education  
    Location: Istanbul, Turkey | Email: qurbanzade@ada.edu.az  
-----  
[8] Nazli Rehimli | Age: 18 | GPA: 3.67 | ID: 21345 | Faculty: ComputerScienc  
    Location: Paris, France | Email: rehimli@ada.edu.az  
-----
```

In **Fifth Section** has not much functionality, it is just printing all students who stored in database.

The screenshot shows the Visual Studio Code interface with the 'TERMINAL' tab active. The terminal output displays the results of a program that prints all student data. The output is as follows:

```
-----  
| Printing All Students |  
-----  
  
Displaying information for 13 students:  
[1] Huseyn Hacıyeva | Age: 20 | GPA: 1.70 | ID: 24968 | Faculty: IT  
    Location: Baku, Azerbaijan | Email: hacıyeva@ada.edu.az  
-----  
[2] Sahil Bagirzade | Age: 19 | GPA: 2.10 | ID: 20364 | Faculty: Finance  
    Location: Paris, France | Email: bagirzade@ada.edu.az  
-----  
[3] Saleh Hacıyev | Age: 19 | GPA: 2.10 | ID: 29374 | Faculty: Law  
    Location: Ganja, Azerbaijan | Email: hacıyev@ada.edu.az  
-----  
[4] Nihat Memmedov | Age: 24 | GPA: 2.37 | ID: 25647 | Faculty: Law  
    Location: Sofia, Bulgaria | Email: memmedov@ada.edu.az  
-----  
[5] Dilare Misirxanli | Age: 18 | GPA: 2.40 | ID: 21968 | Faculty: IT  
    Location: Agdam, Azerbaijan | Email: misirxanli@ada.edu.az  
-----  
[6] Elgun Shukurov | Age: 21 | GPA: 2.40 | ID: 25687 | Faculty: IT  
    Location: Moscow, Russia | Email: salayev@ada.edu.az  
-----  
[7] Elgun Gaziyeu | Age: 23 | GPA: 2.45 | ID: 24586 | Faculty: Business  
    Location: Baku, Azerbaijan | Email: gaziyeu@ada.edu.az  
-----  
[8] Nicat Ezizli | Age: 19 | GPA: 2.89 | ID: 21975 | Faculty: Architecture  
    Location: Rome, Italy | Email: ezizli@ada.edu.az  
-----
```

Contribution Table And Introducing The Team Members:

Member1: Nihat Shukurov

Member2: Omar Mustafayev

Member3: Javad Taghiyev

After Nuraddin teacher introducing the Final Project, we have discussed how can we do that the most professional standards for getting full point. We have researched, gathered information, analysed many examples for starting with best knowledge to Project. When we created the plan and splitting every responsibility among the members, we were ready for starting. After long nights and hardworking we could do it excellent job.

“Dream it, Plan it, Do it”

Contribution Table

Name of The Member	Responsibiliy of Member	Countribution Percentage(%)
Nihat Shukurov	Creating Plan of Project and Splitting Responsibilities, Adding,Filtering, Sorting Function, Supervising whole process, Creating connection among functions, Writing Report	33.3%
Omar Mustafayev	Writing structures and logic, Seperating .h and .c files, Writing Exit, List_All_Students Functions, Debugging Bugs,	33.3%
Javad Taghiyev	Writing code structures and logic,, Interface of Program, Writing Searching Function (with edit and delete)	33.3%

Thank You For Your Attention!

