Object Oriented Programming

Teacher: Dr. Tamim Ahmad

Assignment # 3

Name #	Enrollment #
Mudassir Riaz	01-131232-046
Muhammad Sami Shahid	01-131232-066

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Timetable Management System

❖ Introduction:

In this assignment, we created a form-based timetable management system, that shows timetable for an individual student from different section/classes, and it also shows timetable for an induvial teacher. Moreover, it shows the timetable for a particular section/class and for a particular room.

○ GitHub link :

https://github.com/mudassirriaz64/OOP-ASSIGNMENT-3

This repository contains all the .h, .cpp, and .txt files, including commits from both group members. Initially, we developed the entire program in a single .cpp file. Later, with the help of ChatGPT, we separated it into .h and .cpp files. This time, We have added an SQL connection to the project.

ChatGPT chat link:

https://chat.openai.com/share/42f9ae1c-9e4a-42d8-a065-ca215bc5d70b

https://chat.openai.com/share/6e9d44cb-7f49-438b-b2f7-b8b85de6f7af

https://chat.openai.com/share/ae5894f6-73be-4b44-ac43-6226cd9a1469
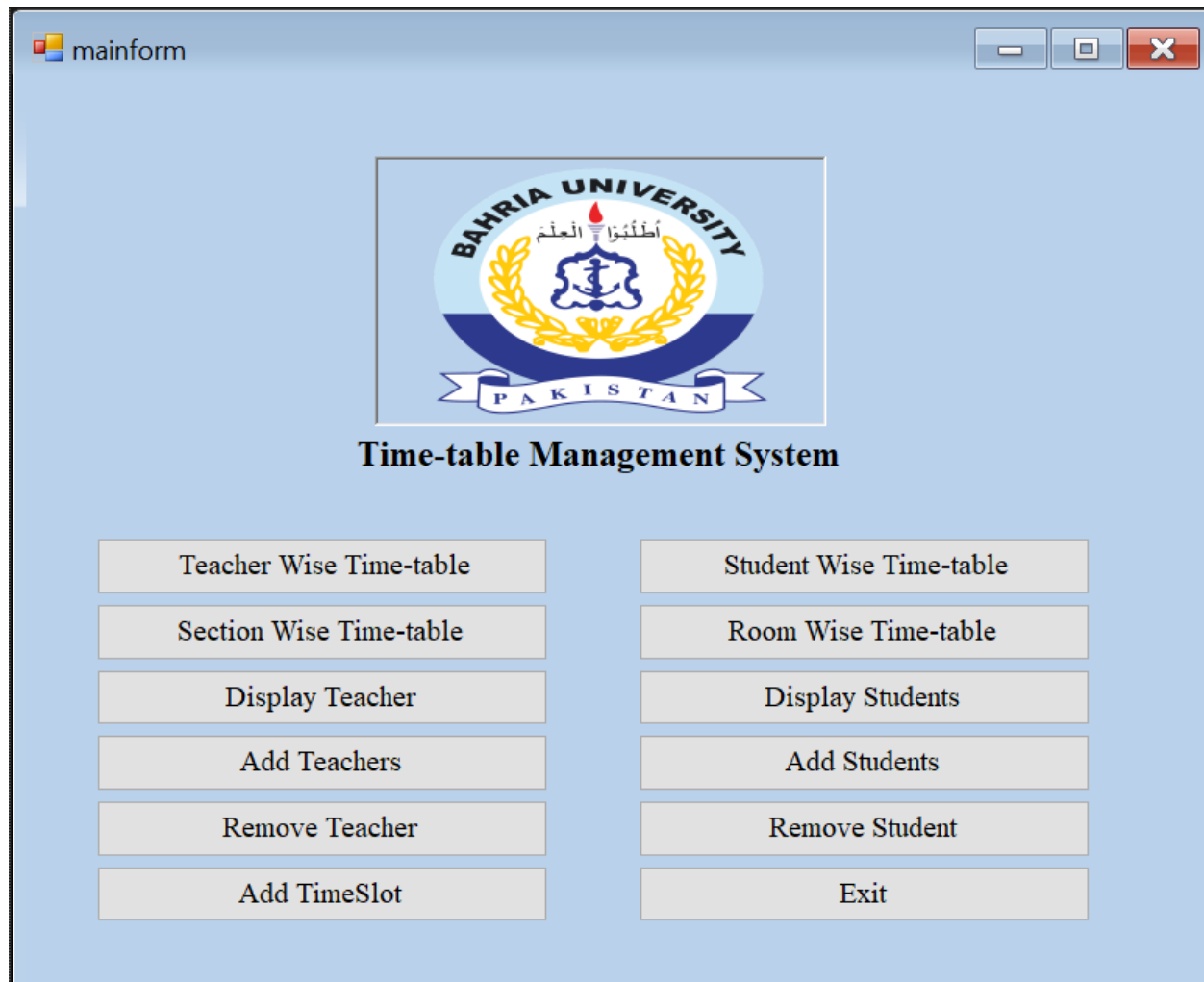
We took some more help from ChatGPT too like fixing errors in the program, asking for some functionality ideas 😊.

OUTPUT SNIPPETS ARE ON THE NEXT PAGE

❖ Output Snippets:

**Following are some snippets from the code output:**

Main Menu:

Teacher Wise Timetable:

When you select option 1, the program will ask you for an application id, which is present in teachers.txt file.

NOTE:All the txt files shown here are just a sample of the format of data that is actually inside the database.

teachers - Notepad

File Edit Format View Help

191442
Dr. Awais Majeed
191441
Dr. Tamim Iqbal
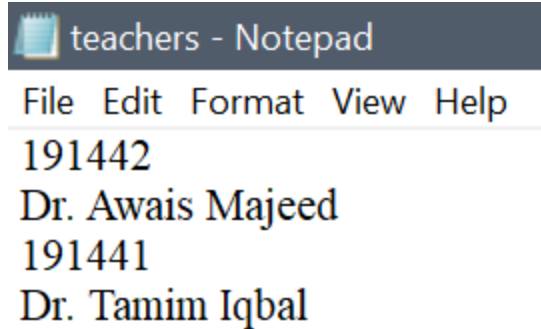
When you enter the application id of the teacher, the form will display the timetable.

Teacher Time Table

Teacher Name: Dr. Tamim Iqbal
Teacher ID: 191441

	Day	Start Time	End Time	Class Details
▶	Monday	8:30	10:25	Object Oriented Programming - BSE 2-A - Room 4-19
	Monday	11:30	1:25	Object Oriented Programming - BSE 2-B - Room 4-19
	Tuesday	8:30	10:25	SQE - BSE 6-A - Room 4-18
	Tuesday	11:30	12:25	Object Oriented Programming - BSE 2-B - Room 4-19
	Tuesday	12:30	1:25	Object Oriented Programming - BSE 2-A - Room 4-19
	Friday	11:25	12:30	SQE - BSE 6-A - Room 4-18
*				

Student Wise Timetable:

Just like the teacher file, the student wise timetable option will also ask you for the enrollment id of the student, which is present in student.txt, it matches the inputted enrollment id with the enrollment id stored in student.txt, Enrollment ID is case sensitive.

Mudassir Riaz
01-131232-046
2-B
Sami Shahid
01-131232-066
2-A
Awais Ishaq
01-131232-052
4-A
Hamza Imtiaz
01-131232-058
6-A
Manahil Amjad
01-131232-044
8-A

After inputting the enrollment id, it shows the timetable of the student, it shows the timetable of the section that the student is currently enrolled in.

Student Name:	Mudassir Riaz
Enrollment ID:	01-131232-046
Section:	2-B

Day	Start Time	End Time	Class Details
Monday	11:30	1:25	Object Oriented Programming - Dr. Tamim Khan - ROOM 4-19
Monday	3:30	4:25	Linear Algebra - Sir Zubair Abbasi - ROOM 4-19
Tuesday	10:30	11:25	Introduction to Software Engineering - Dr. Awais Majeed - ROOM 4-18
Tuesday	11:30	12:25	Object Oriented Programming - Dr. Tamim Khan - ROOM 4-19
Tuesday	2:30	1:25	Discrete Structures - Engr. Sadaf - ROOM 4-17
Tuesday	2:30	4:25	Linear Algebra - Sir Zubair Abbasi - ROOM 4-19
Wednesday	10:30	12:25	Effective Communication Skills - Sir Ghulam Qamar - ROOM 4-17
Wednesday	2:30	4:25	Islamic Studies - Dr. Rahim Ullah - ROOM 108
Thursday	8:30	11:25	Object Oriented Programming Lab - Engr. Waleed - LAB 4-01
Friday	9:30	11:25	Discrete Structures - Engr. Sadaf - ROOM 4-17

Section wise Timetable:

For any section, that is mentioned the program will show the timetable.

Time-table Managemnet System

Enter Section (2-A, 2-B, 4-A, 6-A, 8-A):

| Login | Reset | Exit |

Section Name is case sensitive, so it should be typed as it is.

Section Time Table

Timetable for Section 2-A

	Day	Start Time	End Time	Class Details
▶	Monday	10:30	11:25	Discrete Structures - Engr. Sadaf - ROOM 4-18
	Monday	11:30	1:25	Introduction to Software Engineering - Dr. Awais Majeed - ROOM 4-19
	Monday	3:30	4:25	Linear Algebra - Sir Zubair Abbasi - ROOM 4-19
	Tuesday	9:30	10:25	Discrete Structures - Engr. Sadaf - ROOM 4-19
	Tuesday	11:30	12:25	Introduction to Software Engineering - Dr. Awais Majeed - ROOM 4-18
	Wednesday	8:30	10:25	Effective Communication Skills - Sir Ghulam Qamar - ROOM 4-17
	Wednesday	12:30	2:25	Islamic Studies - Dr. Rahim Ullah - ROOM 4-19
	Thursday	11:30	2:25	Object Oriented Programming Lab - Engr. Waleed - LAB 4-01
*				

⬥ Room wise Timetable:

For any room, that is mentioned the program will show the timetable.

Time-table Managemnet System

Enter Room (4-17, 4-18, 4-19):

Login	Reset	Exit

Just like the section name, room name is also case sensitive. The format of input must be kept in mind (i.e 4-17, but not 417 that will prompt an error)

Room Time Table

TimeTable For Room 4-17

Day	Start Time	End Time	Class Details
Monday	8:30	10:25	Introduction to Software Engineering - Dr. Awai...
Monday	10:30	12:25	Introduction to Software Engineering - Dr. Awai...
Monday	12:30	2:25	HCI - Dr. Joddat - BSE 6-A
Monday	2:30	3:25	TRW - Dr. Baseer - BSE 6-A
Tuesday	9:30	10:25	Discrete Structures - Engr. Sadaf - BSE 2-A
Tuesday	10:30	11:25	Discrete Structures - Engr. Sadaf - BSE 2-B
Tuesday	11:30	12:25	Database Management System - Dr. Joddat Fa...
Tuesday	2:30	4:25	SDA - Dr. Awais Majeed - BSE 4-A
Wednesday	8:30	10:25	Effective Communication Skills - Sir Ghulam Qa...
Wednesday	10:30	12:25	Effective Communication Skills - Sir Ghulam Qa...
Friday	11:30	12:25	Design and Analysis of Algorithms - Engr. Sada...

Add Timeslot:

AddTimeSlot

Add TimeSlot

Enter Day :

Enter Section :

Enter Start time :

Enter Teacher Name :

Enter End Time :

Enter Course name :

Enter Teacher ID :

Enter Room :

Add   **Clear**   **Exit**
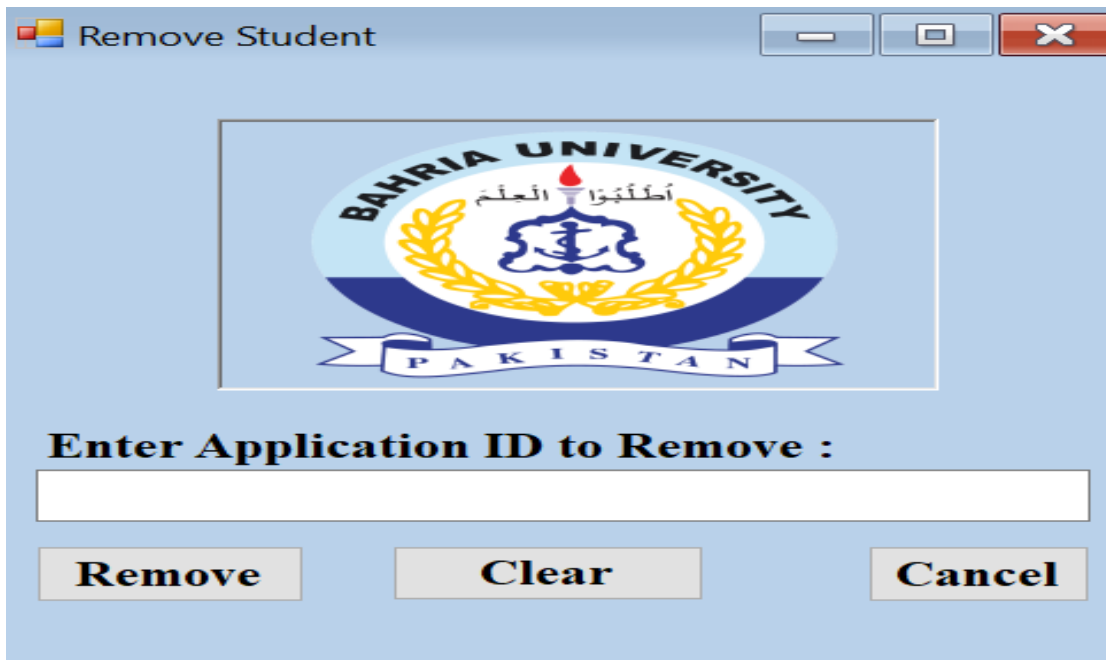
Add Student:

This form asks for name of the student, enrollment id, and section of the student that you want to add, after that it adds the student in .txt file.

Remove Student:

This form removes the student from txt file, it also has exception handling, that shows a message box of Enrollment ID not found, if the student does not exist in students.txt file.

✦ Remove Student:

	Enrollment ID	Name	Section
▶	01-131232-046	Mudassir Riaz	2-B
	01-131232-066	Sami Shahid	2-A
	01-131232-052	Awais Ishaq	4-A
	01-131232-058	Hamza Imtiaz	6-A
	01-131232-044	Manahil Amjad	8-A
	01-131232-050	Huzaifa	2-B

On the same method, the Add teacher, remove teacher, and display teacher works.

➤ Conclusion:

In conclusion, it was a challenging assignment for us to complete, due to that we couldn't implement all the functionalities that were described in the assignment file, but we did our best to implement as much as we can. One more thing, **YES,** we did take help from ai tools, like ChatGPT, but we understood the code and then implemented the code from ChatGPT in our main function. We have shared the ChatGPT chat history.