2023

Student Database
Using Queue

1ST TERM PROJECT 2
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1st Term Project 2

Add Student Manually

Delete Student

Search By Roll Number

Search with First Name


```c
447 Student_data_t* Find_The_Roll(FIFO_Buf_t *fifo , int num_ID)
448 {
449     int i ;
450     Student_data_t *CurrentStudent = fifo->tail ;
451     for(i=0 ; i<fifo->count ; i++)
452     {
453         if(CurrentStudent->ID == num_ID)
454         {
455             DPRINTF(" Student ID Found Successfully\n ");
456             return CurrentStudent;
457         }
458         if((CurrentStudent+1)== (fifo->base + fifo->length))
459         {
460             CurrentStudent = fifo->base;
461         }
462         else
463         {
464             CurrentStudent++;
465         }
466     }
467     CurrentStudent = NULL ;
468     return CurrentStudent;
469 }
470
```

```
        5:=# Search With Courses #=
        6:=# Count Students #=
        7:=# Update Student #=
        8:=# Add_From_File #=
        9:=# Show All Students #==
        10:=# Exit #==
Enter an Option : 4

=========***=========***=========
Enter Student First Name to find :khaled

Last Name Of First Name khaled : walid
Roll Number Of First Name khaled : 1
GPA Of First Name khaled : 3.500000
Courses ofFirst Name khaled 45
=========***=========***=========
```

Search with Courses


```c
447 Student_data_t* Find_The_Roll(FIFO_Buf_t *fifo , int num_ID)
448 {
449     int i ;
450     Student_data_t *CurrentStudent = fifo->tail ;
451     for(i=0 ; i<fifo->count ; i++)
452     {
453         if(CurrentStudent->ID == num_ID)
454         {
455             DPRINTF(" Student ID Found Successfully\n ");
456             return CurrentStudent;
```

```
        7:=# Update Student #=
        8:=# Add_From_File #=
        9:=# Show All Students #==
        10:=# Exit #==
Enter an Option : 5

=========***=========***=========
Enter Course ID :4

====# Information about students in course number ( 4 ) #====

First Name: khaled
Last Name: walid
Roll Number: 1
GPA: 3.500000
        =====***=====

First Name: Ahmed
Last Name: Osama
Roll Number: 2
GPA: 3.800000
        =====***=====

First Name: ahmed
Last Name: eldeeb
Roll Number: 4
GPA: 4.000000
        =====***=====

--------***--------***--------
```
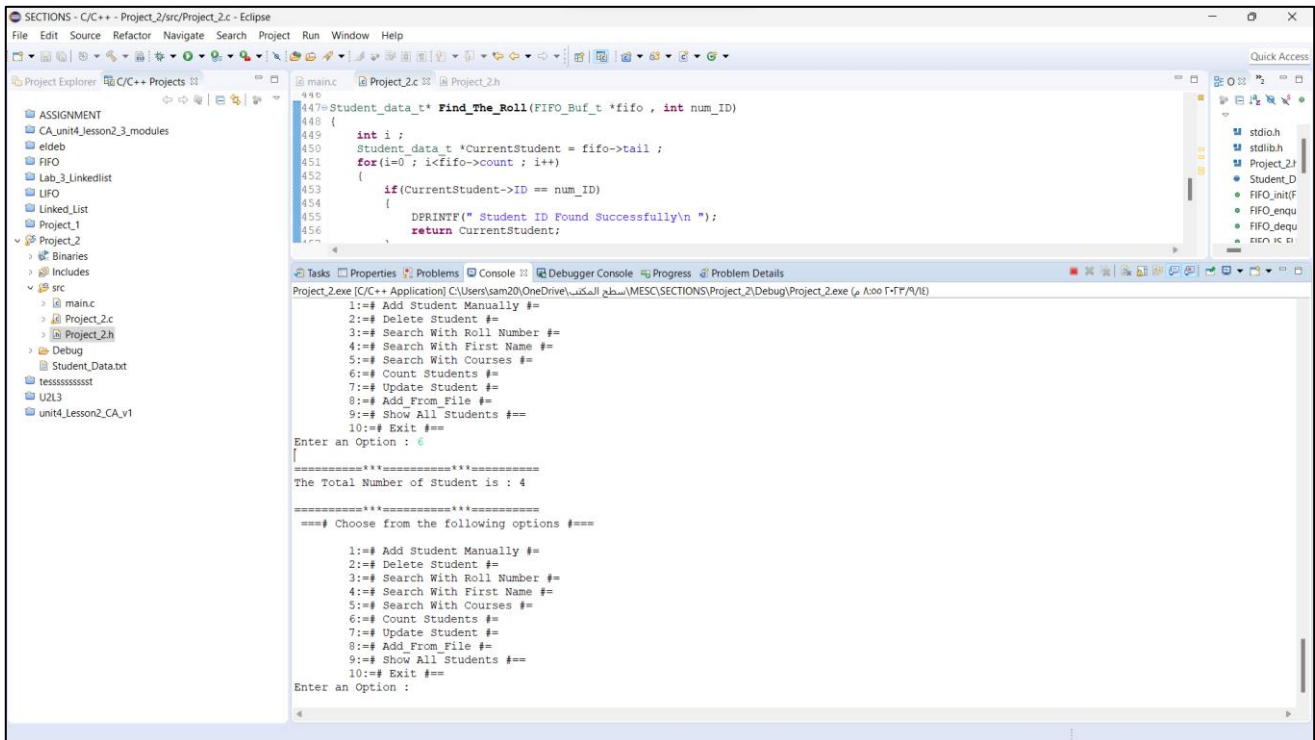
Count Students

Update Student

Add From File


```
28          DPRINTF("\n\t2:=# Delete Student #=");
29          DPRINTF("\n\t3:=# Search With Roll Number #=");
30          DPRINTF("\n\t4:=# Search With First Name #=");
31          DPRINTF("\n\t5:=# Search With Courses #=");
32          DPRINTF("\n\t6:=# Count Students #=");
33          DPRINTF("\n\t7:=# Update Student #=");
```

```
==========***==========***==========
 ===# Choose from the following options #===

        1:=# Add Student Manually #=
        2:=# Delete Student #=
        3:=# Search With Roll Number #=
        4:=# Search With First Name #=
        5:=# Search With Courses #=
        6:=# Count Students #=
        7:=# Update Student #=
        8:=# Add_From_File #=
        9:=# Show All Students #==
        10:=# Exit #==
Enter an Option : 8

=====# Added successfully #=====

=====# Added successfully #=====

=====# Added successfully #=====

==========***==========***==========
 ===# Choose from the following options #===

        1:=# Add Student Manually #=
        2:=# Delete Student #=
        3:=# Search With Roll Number #=
        4:=# Search With First Name #=
        5:=# Search With Courses #=
        6:=# Count Students #=
        7:=# Update Student #=
        8:=# Add_From_File #=
        9:=# Show All Students #==
```
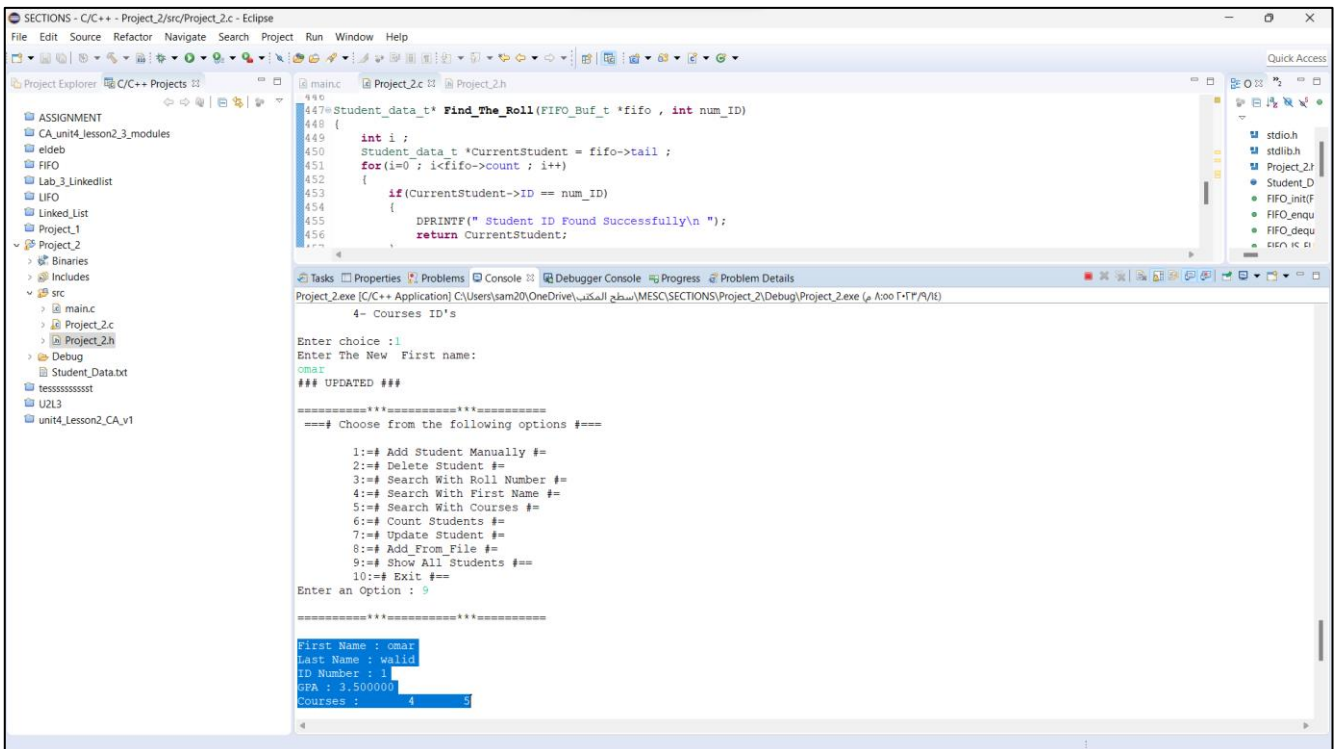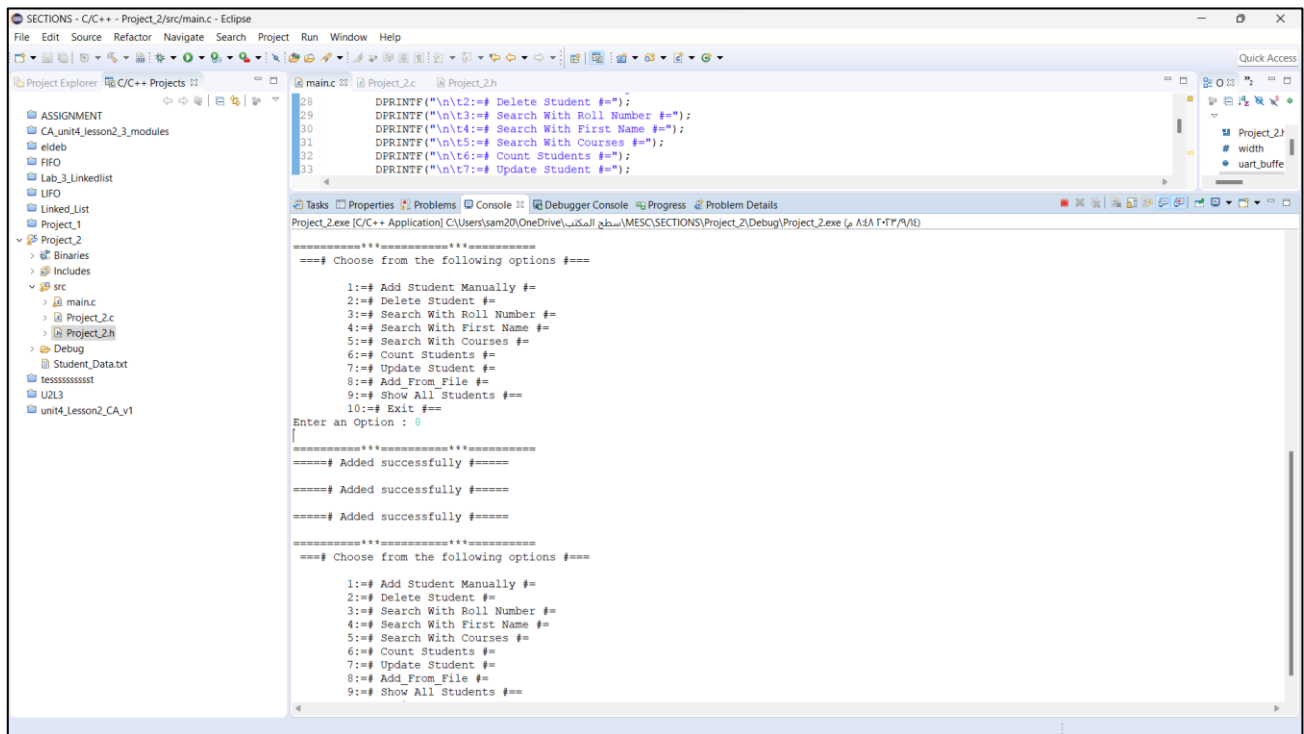
Show All Students
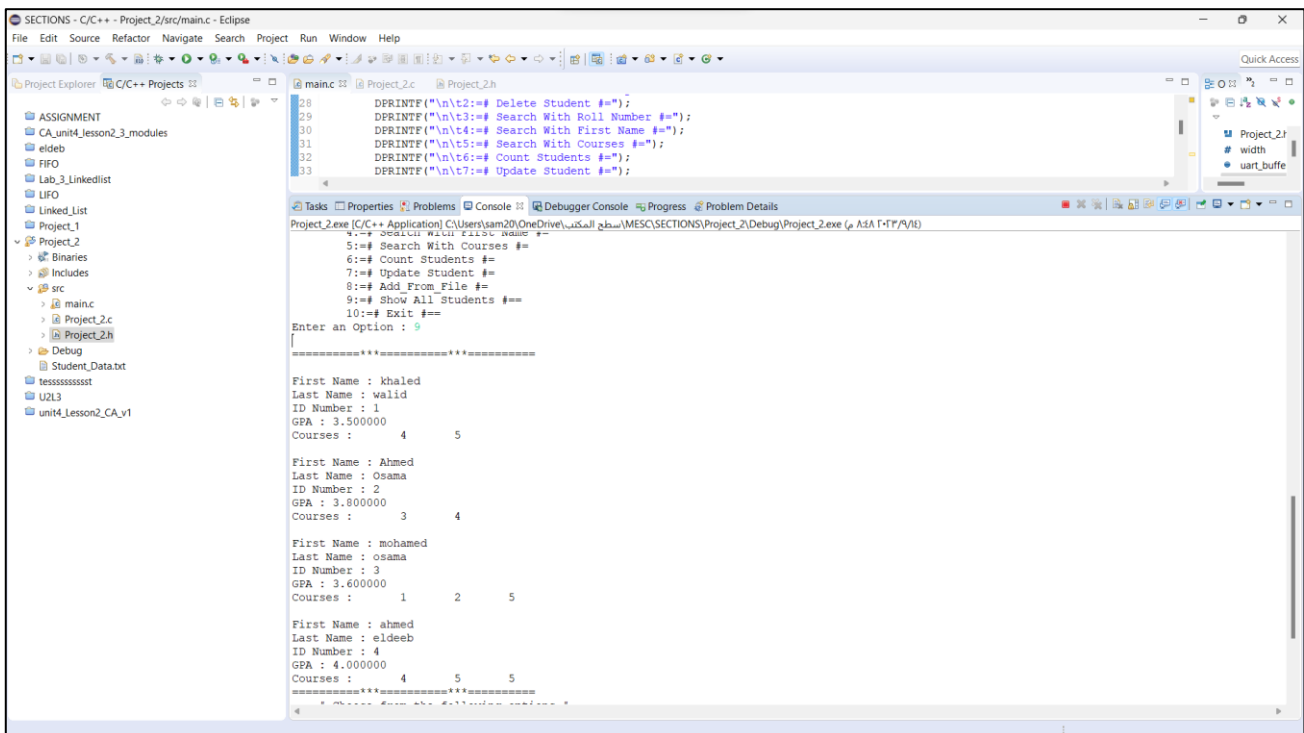


```
28          DPRINTF("\n\t2:=# Delete Student #=");
29          DPRINTF("\n\t3:=# Search With Roll Number #=");
30          DPRINTF("\n\t4:=# Search With First Name #=");
31          DPRINTF("\n\t5:=# Search With Courses #=");
32          DPRINTF("\n\t6:=# Count Students #=");
33          DPRINTF("\n\t7:=# Update Student #=");
```

```
        4:=# Search With First Name #=
        5:=# Search With Courses #=
        6:=# Count Students #=
        7:=# Update Student #=
        8:=# Add_From_File #=
        9:=# Show All Students #==
        10:=# Exit #==
Enter an Option : 9

==========***==========***==========

First Name : khaled
Last Name : walid
ID Number : 1
GPA : 3.500000
Courses :        4        5

First Name : Ahmed
Last Name : Osama
ID Number : 2
GPA : 3.800000
Courses :        3        4

First Name : mohamed
Last Name : osama
ID Number : 3
GPA : 3.600000
Courses :        1        2        5

First Name : ahmed
Last Name : eldeeb
ID Number : 4
GPA : 4.000000
Courses :        4        5        5
==========***==========***==========
```

Exit

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