CSA02 C Programming Assignment 4

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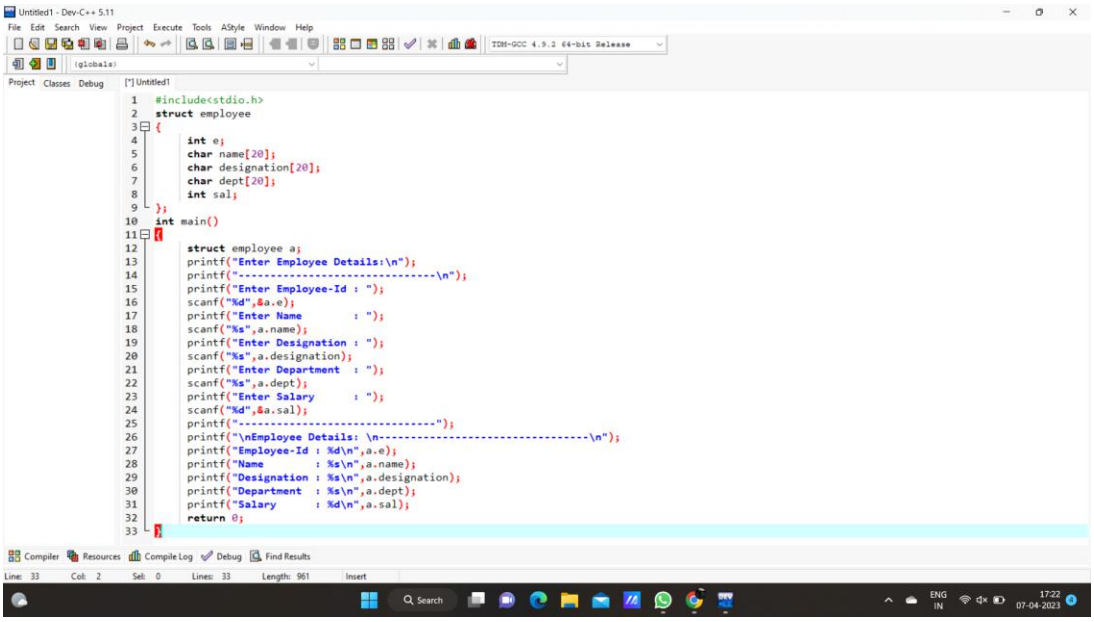
1. Write C program to accept the details of employee and display them using structure. Details consist of Employee ID, Name, Designation, Department, and Salary.

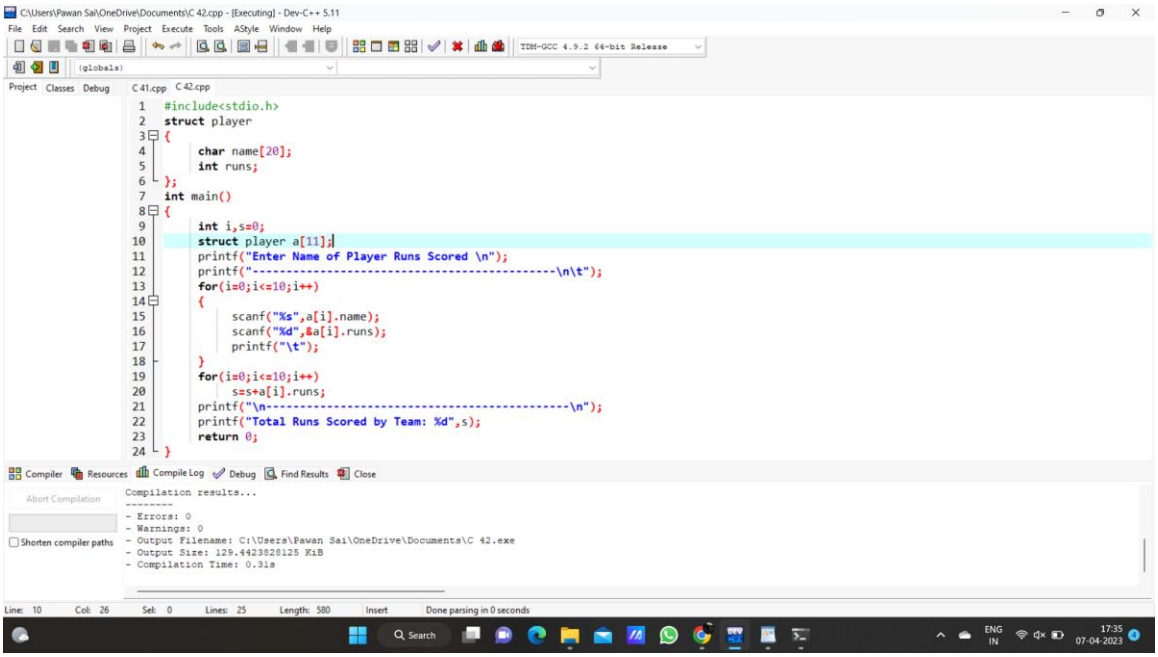


```c
#include<stdio.h>
struct employee
{
    int e;
    char name[20];
    char designation[20];
    char dept[20];
    int sal;
};
int main()
{
    struct employee a;
    printf("Enter Employee Details:\n");
    printf("------------------------------\n");
    printf("Enter Employee-Id : ");
    scanf("%d",&a.e);
    printf("Enter Name        : ");
    scanf("%s",a.name);
    printf("Enter Designation : ");
    scanf("%s",a.designation);
    printf("Enter Department  : ");
    scanf("%s",a.dept);
    printf("Enter Salary      : ");
    scanf("%d",&a.sal);
    printf("------------------------------");
    printf("\nEmployee Details: \n--------------------------------\n");
    printf("Employee-Id : %d\n",a.e);
    printf("Name        : %s\n",a.name);
    printf("Designation : %s\n",a.designation);
    printf("Department  : %s\n",a.dept);
    printf("Salary      : %d\n",a.sal);
    return 0;
}
```

```
Enter Employee Details:
------------------------------
Enter Employee-Id : 276
Enter Name        : parth
Enter Designation : manager
Enter Department  : production
Enter Salary      : 30000
------------------------------
Employee Details:
--------------------------------
Employee-Id : 276
Name        : parth
Designation : manager
Department  : production
Salary      : 30000

--------------------------------
Process exited after 58.54 seconds with return value 0
Press any key to continue . . .
```

2. Write C program to accept batting information of cricket team using structure. It contains

player name and runs scored by player. Calculate total runs scored by cricket team.

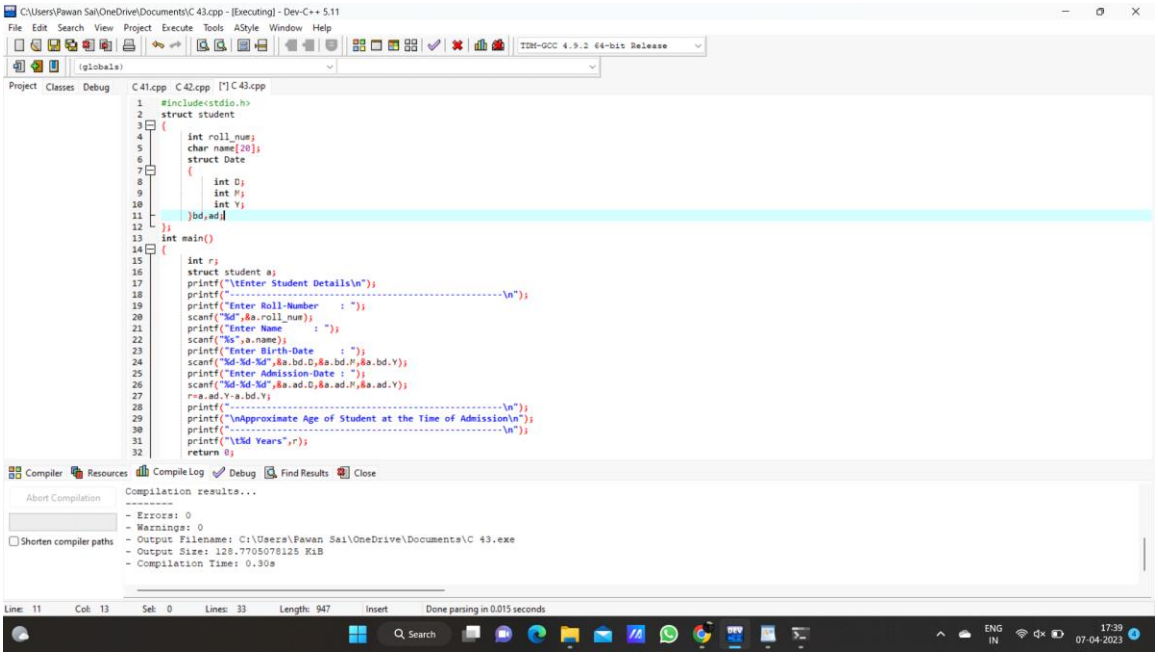


```
#include<stdio.h>
struct player
{
    char name[20];
    int runs;
};
int main()
{
    int i,s=0;
    struct player a[11];
    printf("Enter Name of Player Runs Scored \n");
    printf("-----------------------------------------\n\t");
    for(i=0;i<=10;i++)
    {
        scanf("%s",a[i].name);
        scanf("%d",&a[i].runs);
        printf("\t");
    }
    for(i=0;i<=10;i++)
        s=s+a[i].runs;
    printf("\n-----------------------------------------\n");
    printf("Total Runs Scored by Team: %d",s);
    return 0;
}
```

```
Enter Name of Player Runs Scored
-----------------------------------------
virat 109
                faf 76
                patidar 30
                maxwell 15
                abd 45
                gayle 73
                dk 12
                shahbaz 10
                hasaranga 2
                willey 5
        siraj 10

-----------------------------------------
Total Runs Scored by Team: 387
--------------------------------
Process exited after 13.9 seconds with return value 0
Press any key to continue . . .
```

3. C program to read information of student. It contains Name, Roll number, Birthday,

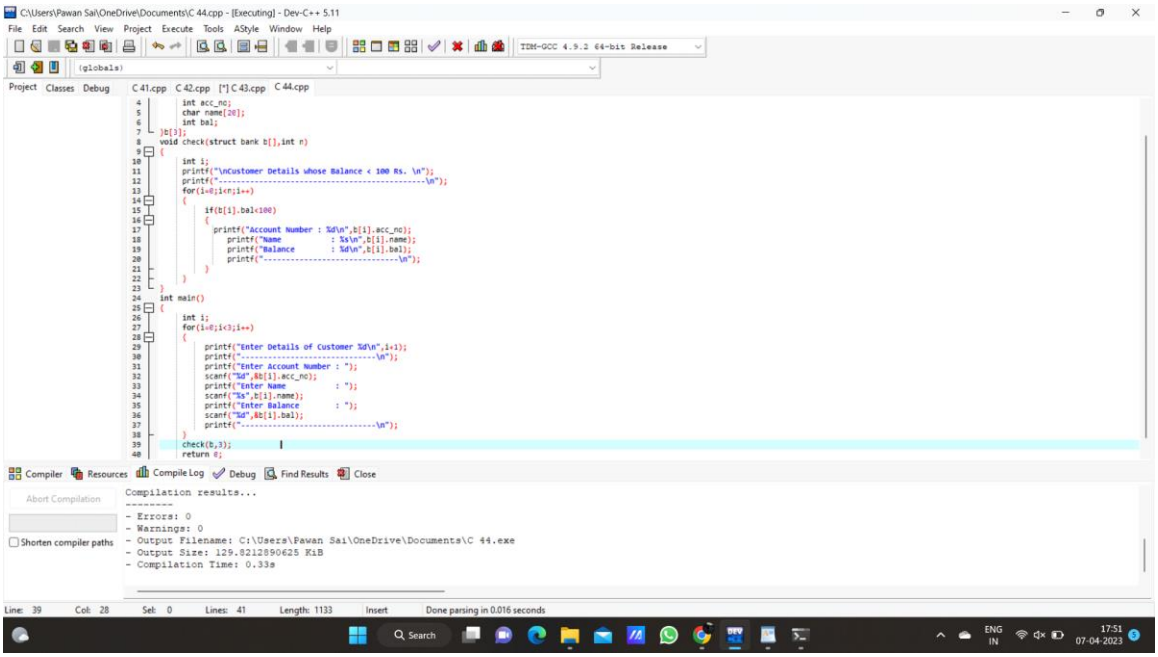
admission date. Calculate age of student at the time of admission.




```
        Enter Student Details
-----------------------------------------------------
Enter Roll-Number    : 03
Enter Name      : gayatri
Enter Birth-Date     : 18-03-2005
Enter Admission-Date : 11-08-2022
-----------------------------------------------------

Approximate Age of Student at the Time of Admission
-----------------------------------------------------
        17 Years
--------------------------------
Process exited after 35.58 seconds with return value 0
Press any key to continue . . .
```

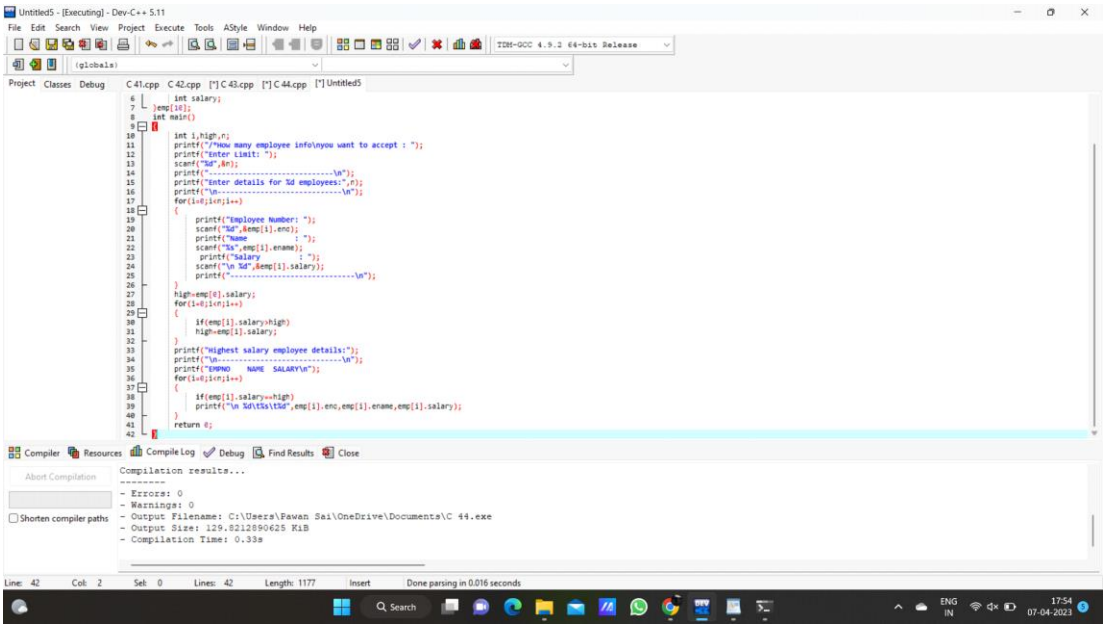
4. Write a 'C' program to accept customer details such as: Account_no, Name, Balance using structure. Assume 3 customers in the bank. Write a function to print the account no. and name of each customer

whose balance < 100 Rs.




```
Enter Details of Customer 1
-----------------------------
Enter Account Number : 1109
Enter Name           : Roshan
Enter Balance        : 89
-----------------------------
Enter Details of Customer 2
-----------------------------
Enter Account Number : 3012
Enter Name           : prajakta
Enter Balance        : 550
-----------------------------
Enter Details of Customer 3
-----------------------------
Enter Account Number : 59198
Enter Name           : sapna
Enter Balance        : 78
-----------------------------

Customer Details whose Balance < 100 Rs.
-----------------------------------------
Account Number : 1109
Name           : Roshan
Balance        : 89
-----------------------------
Account Number : 59198
Name           : sapna
Balance        : 78
-----------------------------
```

5. Write a C program to accept details of 'n' employee (eno, ename, salary) and display the details of employee having highest salary. Use array of structure.




```
/*How many employee info
you want to accept : Enter Limit: 2
-----------------------------
Enter details for 2 employees:
-----------------------------
Employee Number: 101
Name            : sapna
Salary          : 36000
-----------------------------
Employee Number: 102
Name            : prajakta
Salary          : 32000
-----------------------------
Highest salary employee details:
-----------------------------
EMPNO    NAME  SALARY

 101    sapna   36000
--------------------------------
Process exited after 73.66 seconds with return value 0
Press any key to continue . . .
```

6. Write a menu driven program in 'C' which shows the working of library. The menu option should be

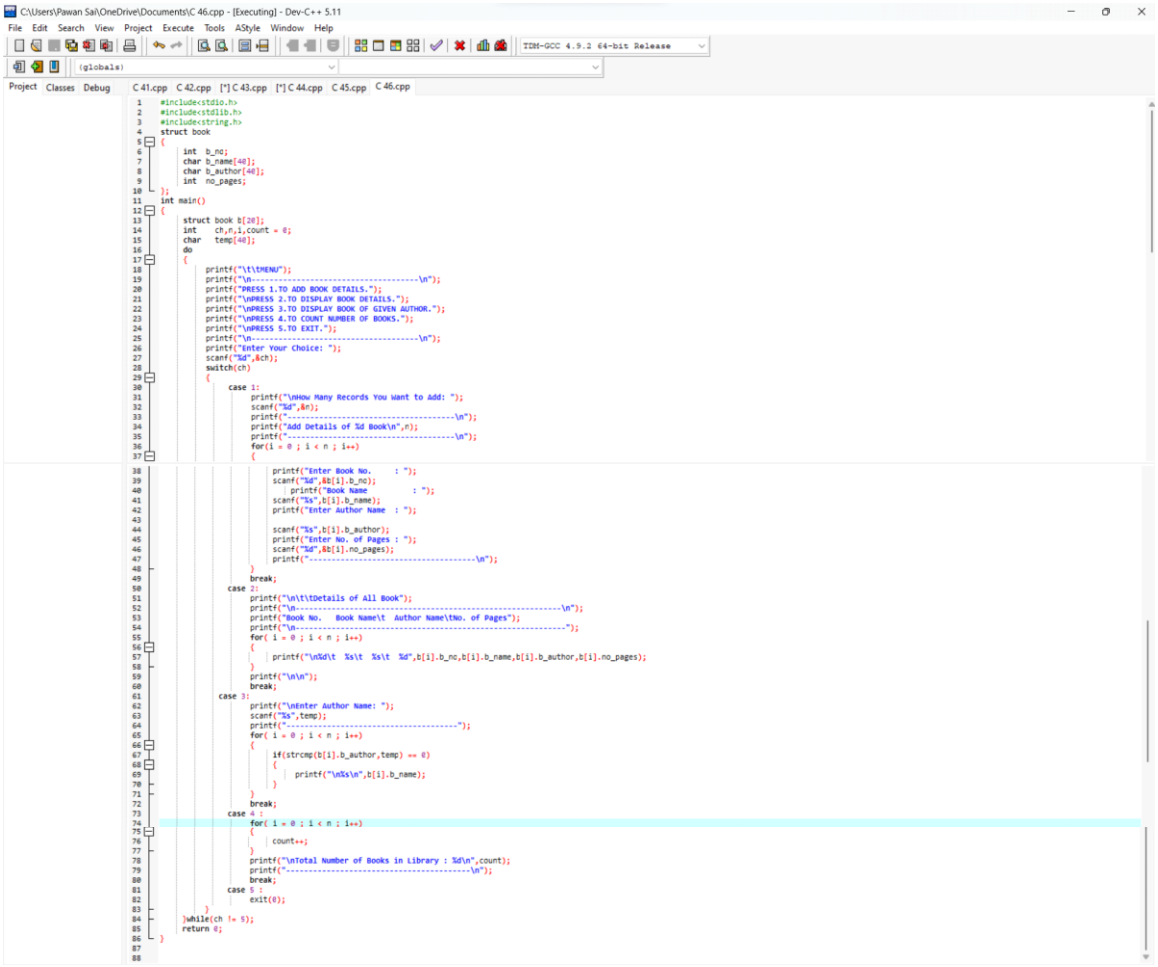
i) Add book details.

ii) Display book details.

iii) List all books of given author.

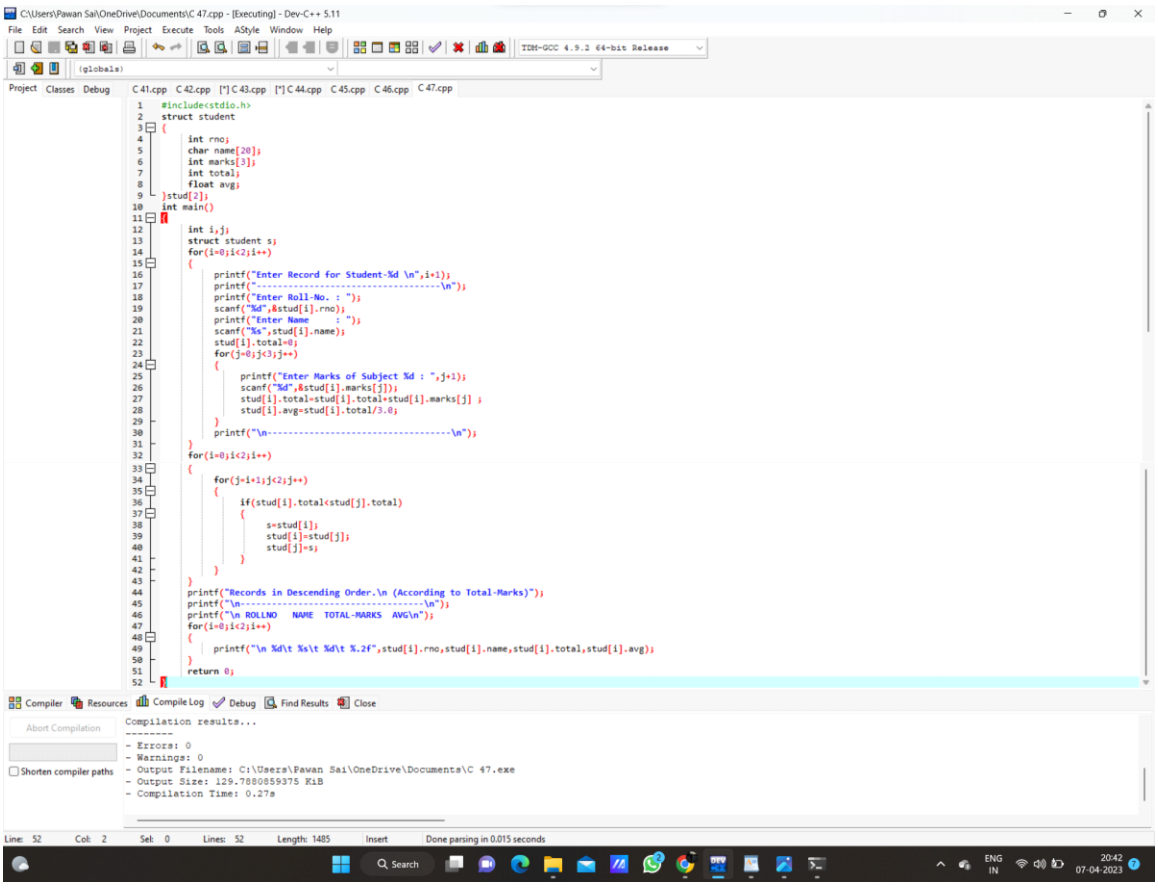
iv) List the count of books in the library.

v) Exit.



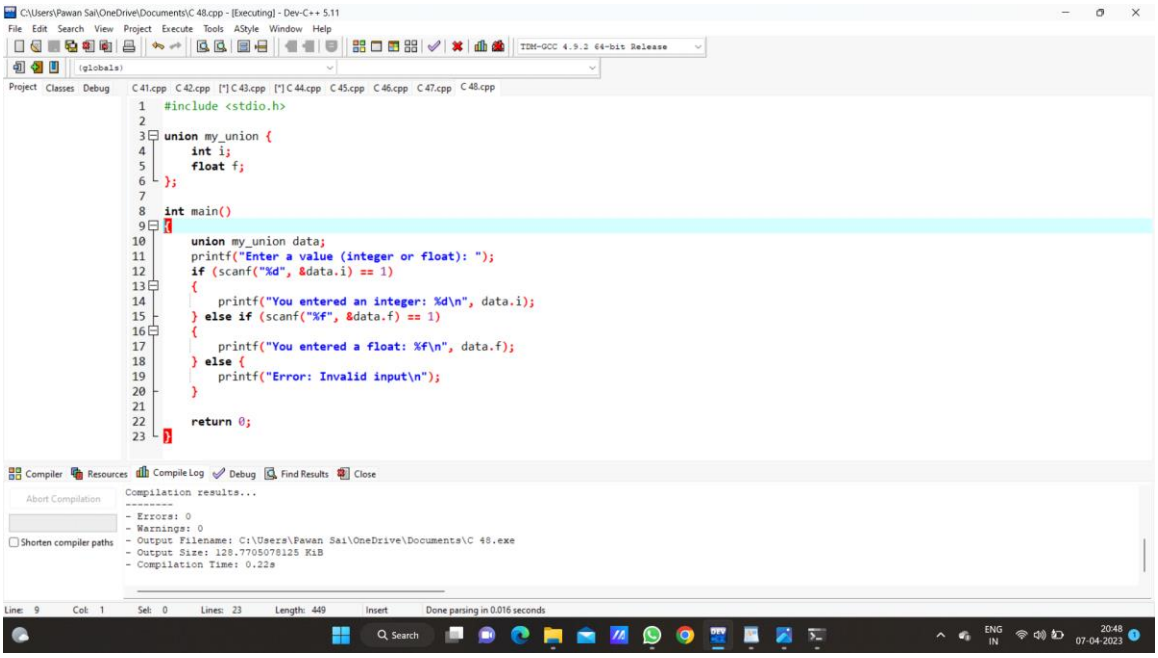
```
------------------------------------
PRESS 1.TO ADD BOOK DETAILS.
PRESS 2.TO DISPLAY BOOK DETAILS.
PRESS 3.TO DISPLAY BOOK OF GIVEN AUTHOR.
PRESS 4.TO COUNT NUMBER OF BOOKS.
PRESS 5.TO EXIT.
------------------------------------
Enter Your Choice: 1

How Many Records You Want to Add: 1
------------------------------------
Add Details of 1 Book
------------------------------------
Enter Book No.      : 1002
Book Name           : c programming
Enter Author Name   : Enter No. of Pages : manas
------------------------------------
```

7. Write a 'C' Program to create a structure of student having fields roll_no, stud_name, mark1, mark2, mark3. Calculate total marks and average marks. Arrange the records in descending order of marks.



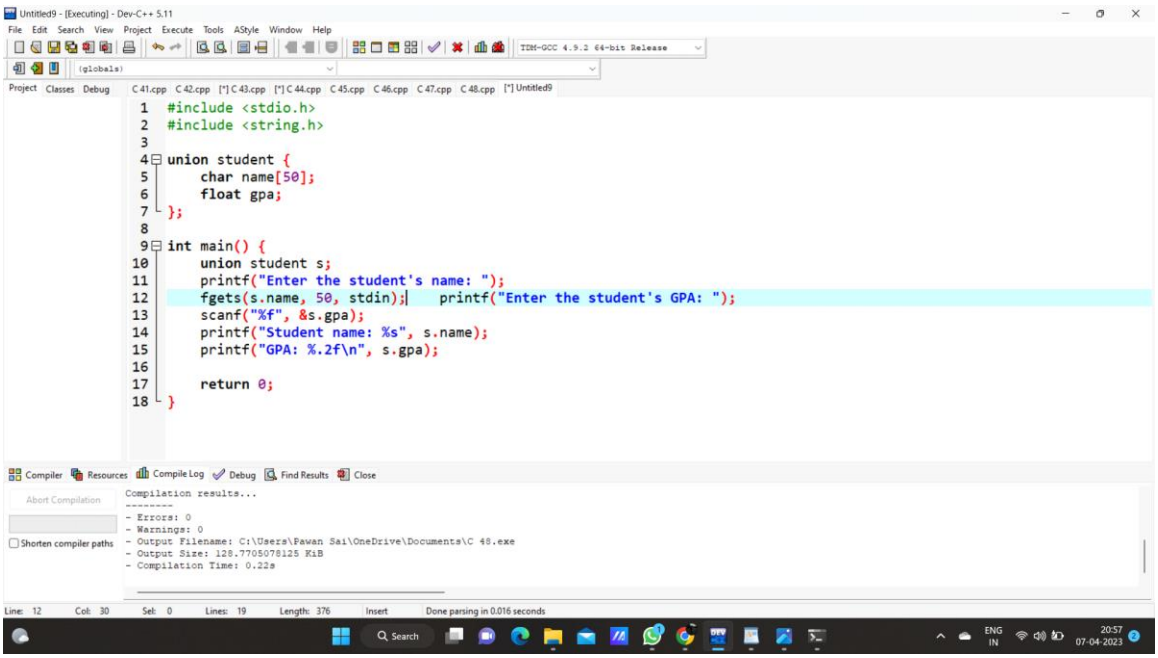
```
Enter Record for Student-1
---------------------------------
Enter Roll-No. : 101
Enter Name     : sapna
Enter Marks of Subject 1 : 50
Enter Marks of Subject 2 : 69
Enter Marks of Subject 3 : 76

---------------------------------
Enter Record for Student-2
---------------------------------
Enter Roll-No. : 102
Enter Name     : roshan
Enter Marks of Subject 1 : 65
Enter Marks of Subject 2 : 75
Enter Marks of Subject 3 : 82

---------------------------------
Records in Descending Order.
 (According to Total-Marks)
---------------------------------

 ROLLNO   NAME  TOTAL-MARKS  AVG

 102     roshan  222     74.00
 101     sapna   195     65.00
--------------------------------
Process exited after 281.2 seconds with return val
ue 0
Press any key to continue . . .
```

8. Write a program that declares a union variable data that can store an integer or a float value. Prompt the user to enter a value of their choice and store it in the appropriate member of the union. Then, print the value that was entered.



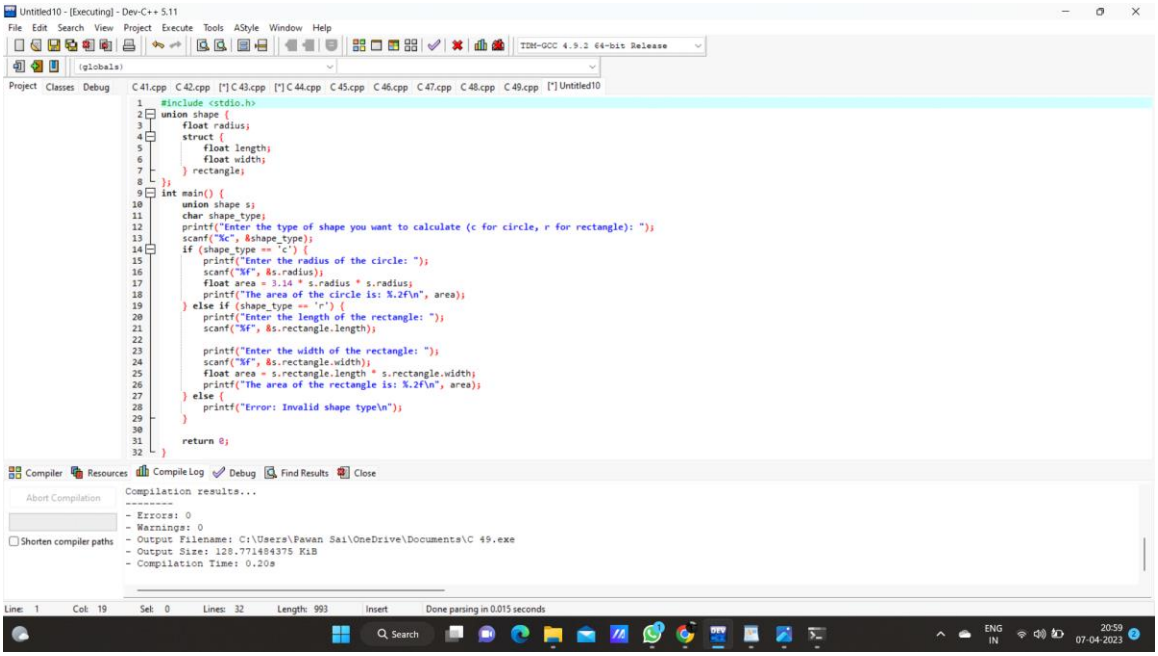

```
Enter a value (integer or float): 52
You entered an integer: 52

--------------------------------
Process exited after 5.02 seconds with return value 0
Press any key to continue . . .
```

9. Create a program that defines a union student that can store a student's name (up to 50 characters) and their GPA. Prompt the user to enter the student's name and GPA, and store them in the union. Then, print the student's name and GPA.




```
Enter the student's name: Pavan sai
Enter the student's GPA: 8.7
Student name: 33
An sai
GPA: 8.70

--------------------------------
Process exited after 20.29 seconds with return value 0
Press any key to continue . . .
```

10. Write a program that defines a union shape that can store a circle's radius or a rectangle's length and width. Prompt the user to enter the type of shape they want to calculate (circle or rectangle), and then prompt them to enter the appropriate dimensions. Calculate and print the area of the shape they entered.




```
Enter the type of shape you want to calculate (c for circle, r for rectangle): c
Enter the radius of the circle: 5
The area of the circle is: 78.50

--------------------------------
Process exited after 7.634 seconds with return value 0
Press any key to continue . . .
```

```
Enter the type of shape you want to calculate (c for circle, r for rectangle): r
Enter the length of the rectangle: 15
Enter the width of the rectangle: 18
The area of the rectangle is: 270.00

--------------------------------
Process exited after 13.06 seconds with return value 0
```