Q.1)Demonstration of Conditional Statement using logical AND Operator (if- else if - else) with limits?

D:\Amaan_Khan\c-assignments\if-elseif-ladder-marks.c - Dev-C++ 5.11

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TDM-GCC 4.9.2 32-bit Profiling

(globals)

if-elseif-ladder-marks.c

```c
#include<stdio.h>
int main(){
    int marks;
    printf("Enter your marks: ");
    scanf("%d",&marks);

    if(marks>=35 && marks<=100){
        printf("Pass");
    }
    else if(marks>100 || marks<0){
        printf("Enter Valid marks");
    }
    else{
        printf("Fail.");
    }
    return 0;
}
```

D:\Amaan_Khan\c-assignments\if-elseif-ladder-marks.exe

```
Enter your marks: 85
Pass
--------------------------------
Process exited after 1.985 seconds with return value 0
Press any key to continue . . .
```

Q.2) Write a program to find out Greatest number among three number?

D:\Amaan_Khan\c-assignments\find-greatest.cpp - [Executing] - Dev-C++ 5.11

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(globals)

if-elseif-ladder-marks.c | find-greatest.cpp

```c
// WAP to find greatest number among three
// Developed by Amaan Khan (BCA FY)
#include<stdio.h>

int main(){
    int n1, n2, n3;

    printf("Enter first number: ");
    scanf("%d", &n1);

    printf("Enter second number: ");
    scanf("%d", &n2);

    printf("Enter third number: ");
    scanf("%d", &n3);

    if(n1 > n2 && n1 > n3){
        printf("%d is greatest\n", n1);
    }
    else if(n2 > n1 && n2 > n3){
        printf("%d is greatest\n", n2);
    }
    else if(n3 > n1 && n3 > n2){
        printf("%d is greatest\n", n3);
    }
    else if(n1 == n2 && n2 == n3){
        printf("All Number are equal\n");
    }
    else{
        printf("Two or more numbers are equal\n");
    }

    return 0;
```

D:\Amaan_Khan\c-assignments\find-greatest.exe

```
Enter first number: 45
Enter second number: 65
Enter third number: 98
98 is greatest

--------------------------------
Process exited after 11.29 seconds with return value 0
Press any key to continue . . .
```

Q.3) WAP for Looping statements math Table in this format (2x1=2)?

D:\Amaan_Khan\c-assignments\forLoop-table.c - [Executing] - Dev-C++ 5.11

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TDM-GCC

(globals)

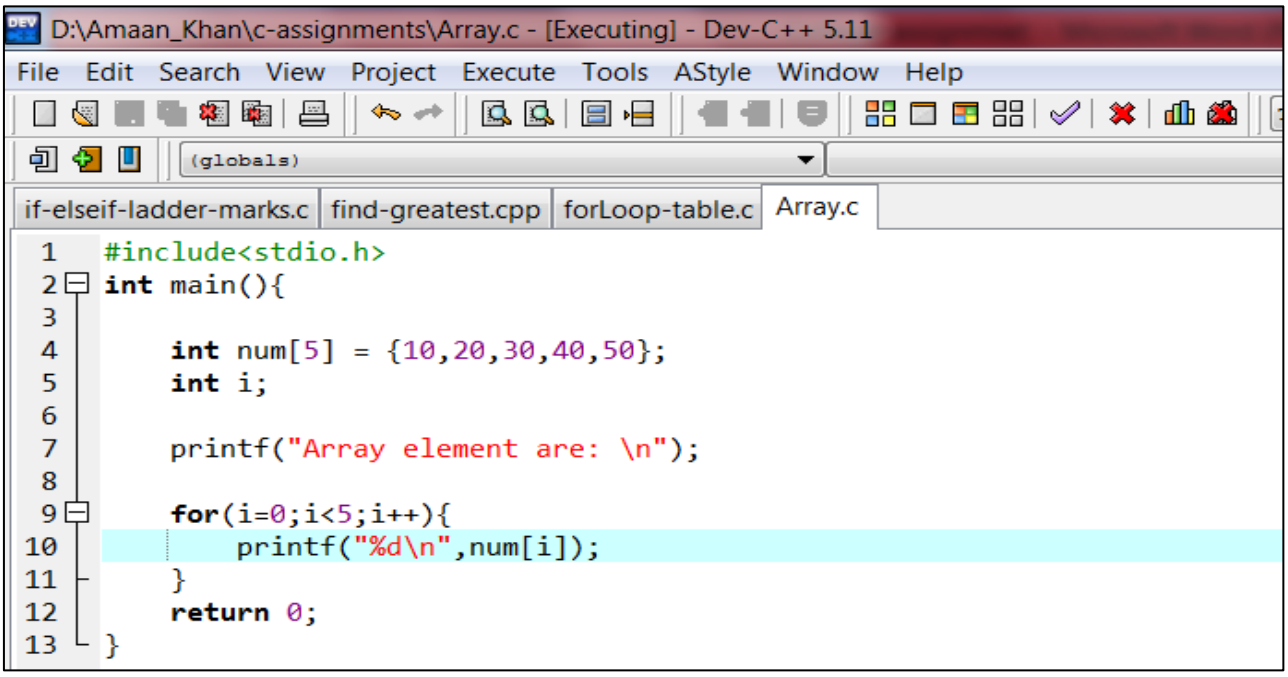
if-elseif-ladder-marks.c | find-greatest.cpp | forLoop-table.c

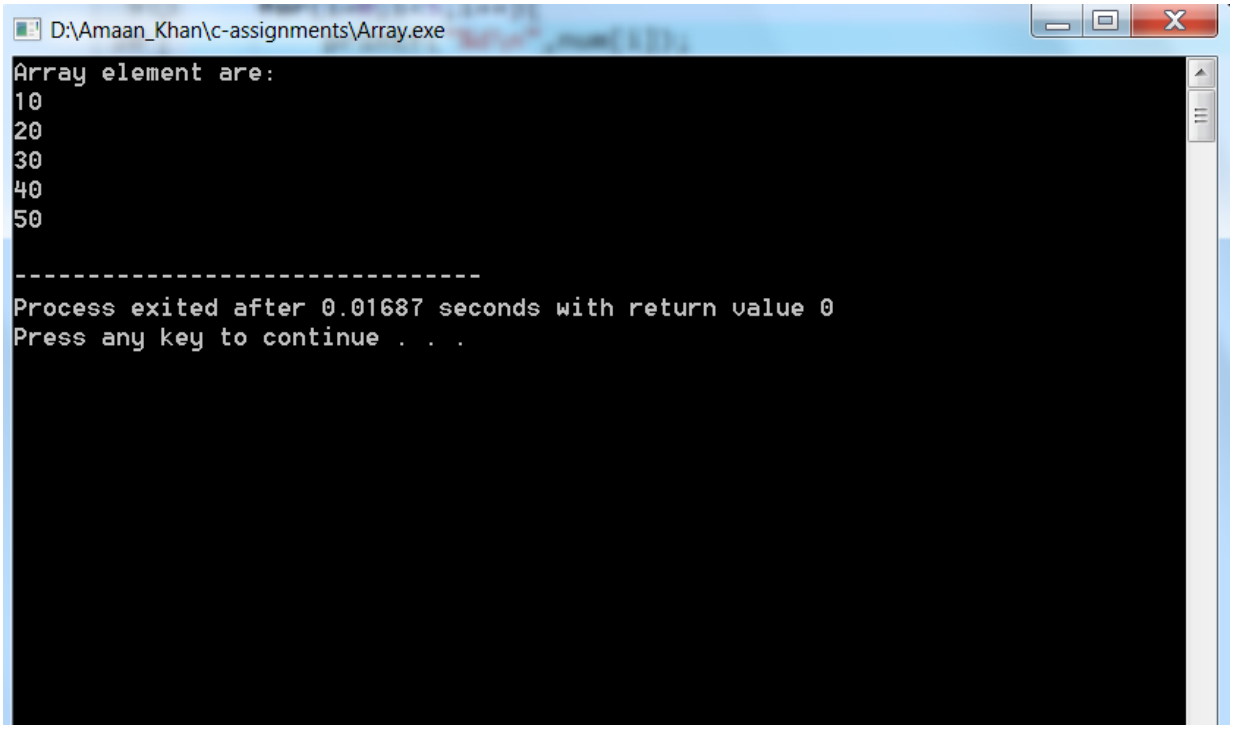
```c
#include<stdio.h>
int main(){
    int num,i;
    printf("Enter Number For Math Table: ");
    scanf("%d",&num);

    for(i=1;i<=10;i++){
        printf("%d X %d = %d\n",num,i,num*i);
    }
    return 0;
}
```

D:\Amaan_Khan\c-assignments\forLoop-table.exe

```
Enter Number For Math Table: 2
2 X 1 = 2
2 X 2 = 4
2 X 3 = 6
2 X 4 = 8
2 X 5 = 10
2 X 6 = 12
2 X 7 = 14
2 X 8 = 16
2 X 9 = 18
2 X 10 = 20

--------------------------------
Process exited after 1.488 seconds with return value 0
Press any key to continue . . .
```

Q.4) Write a C Program to read 5 elements of an array and display them using a Loop?





Q.5) Write a C Program to demonstrate Any Three String Function?

D:\Amaan_Khan\c-assignments\string-function.c - [Executing] - Dev-C++ 5.11

File Edit Search View Project Execute Tools AStyle Window Help

(globals)

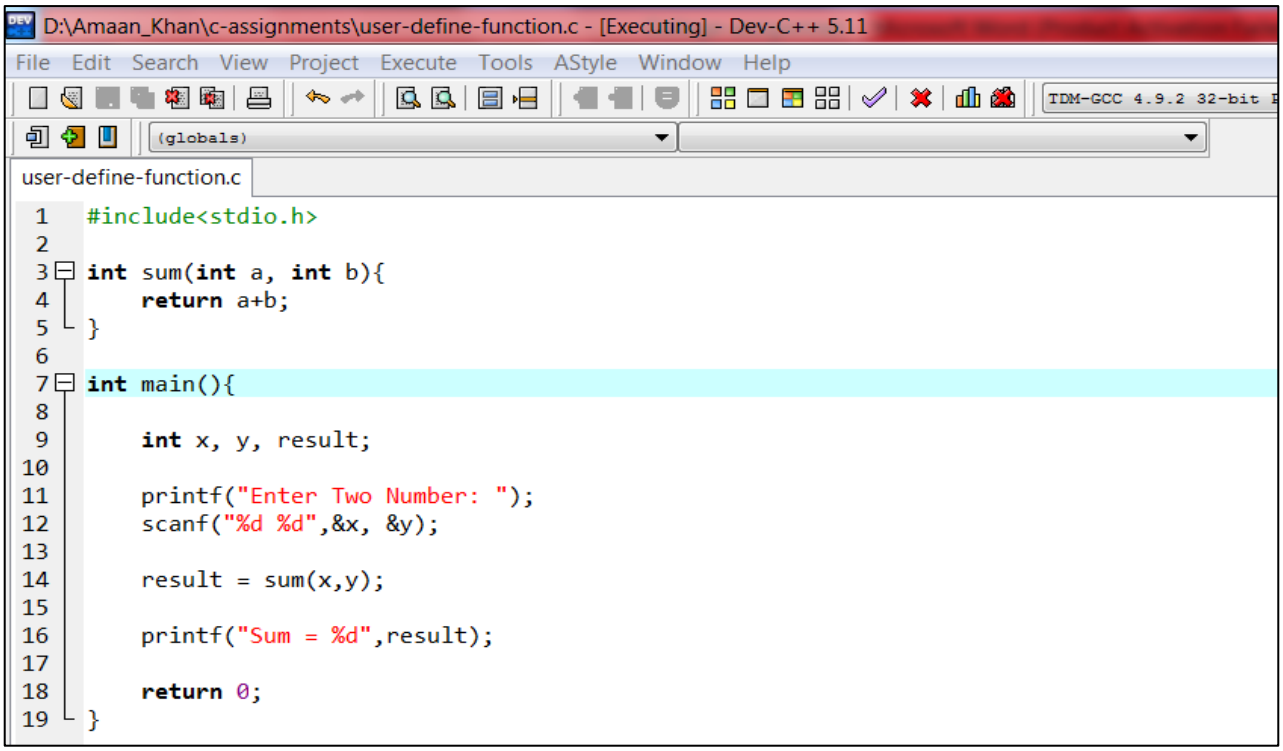
string-function.c

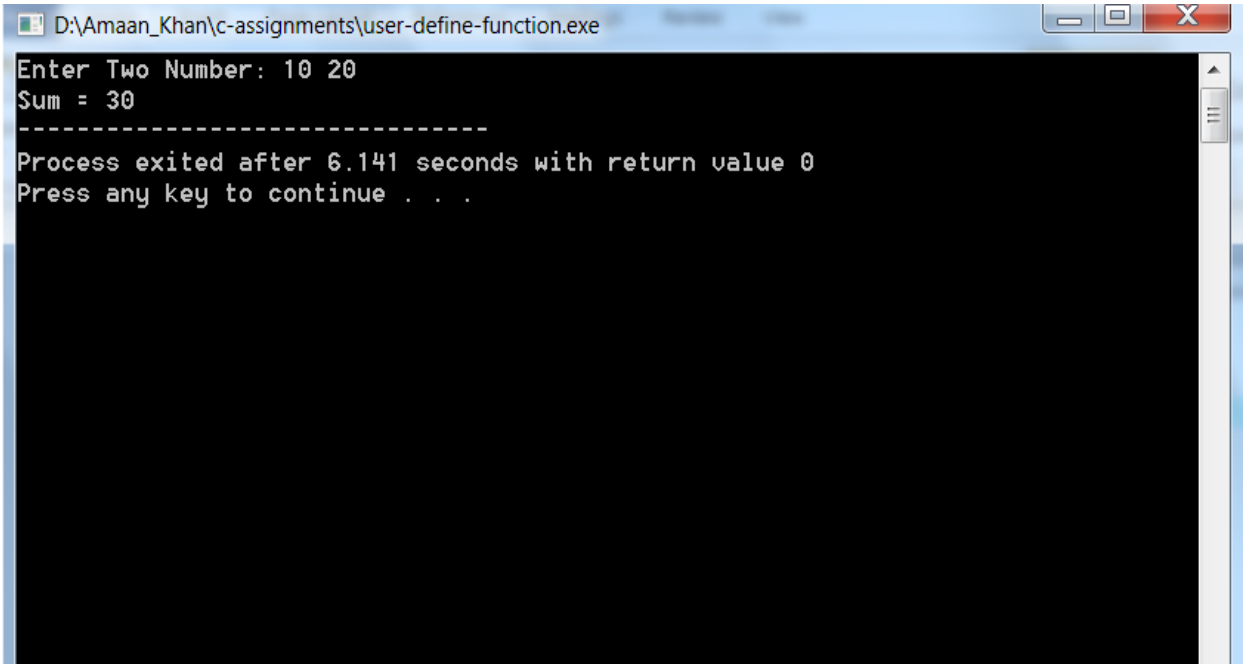
```c
#include<stdio.h>
#include<string.h>

int main(){

    char str[50];

    printf("Enter a Text (String): ");
    scanf("%s", str);

    printf("Length of string: %d\n", strlen(str));

    printf("UpperCase String: %s\n", strupr(str));

    printf("LowerCase String: %s\n", strlwr(str));

    return 0;
}
```

D:\Amaan_Khan\c-assignments\string-function.exe

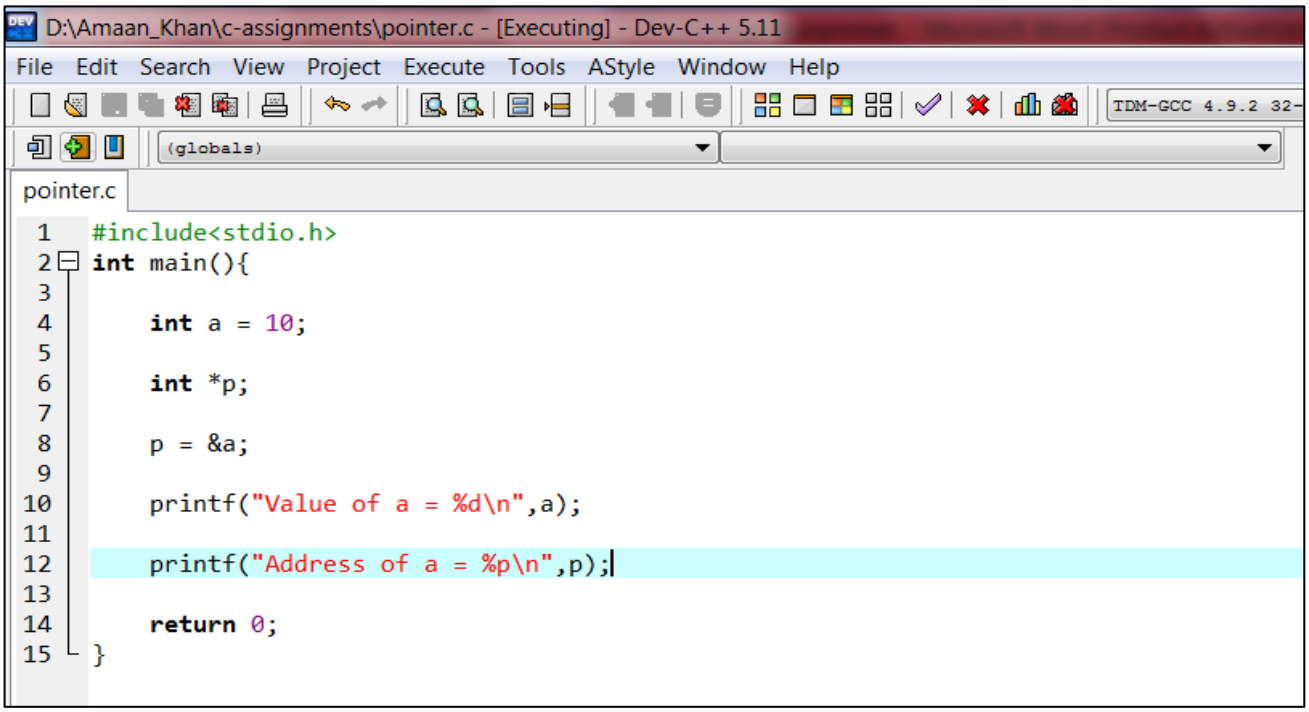
```
Enter a Text (String): Amaan
Length of string: 5
UpperCase String: AMAAN
LowerCase String: amaan

--------------------------------
Process exited after 3.275 seconds with return value 0
Press any key to continue . . .
```

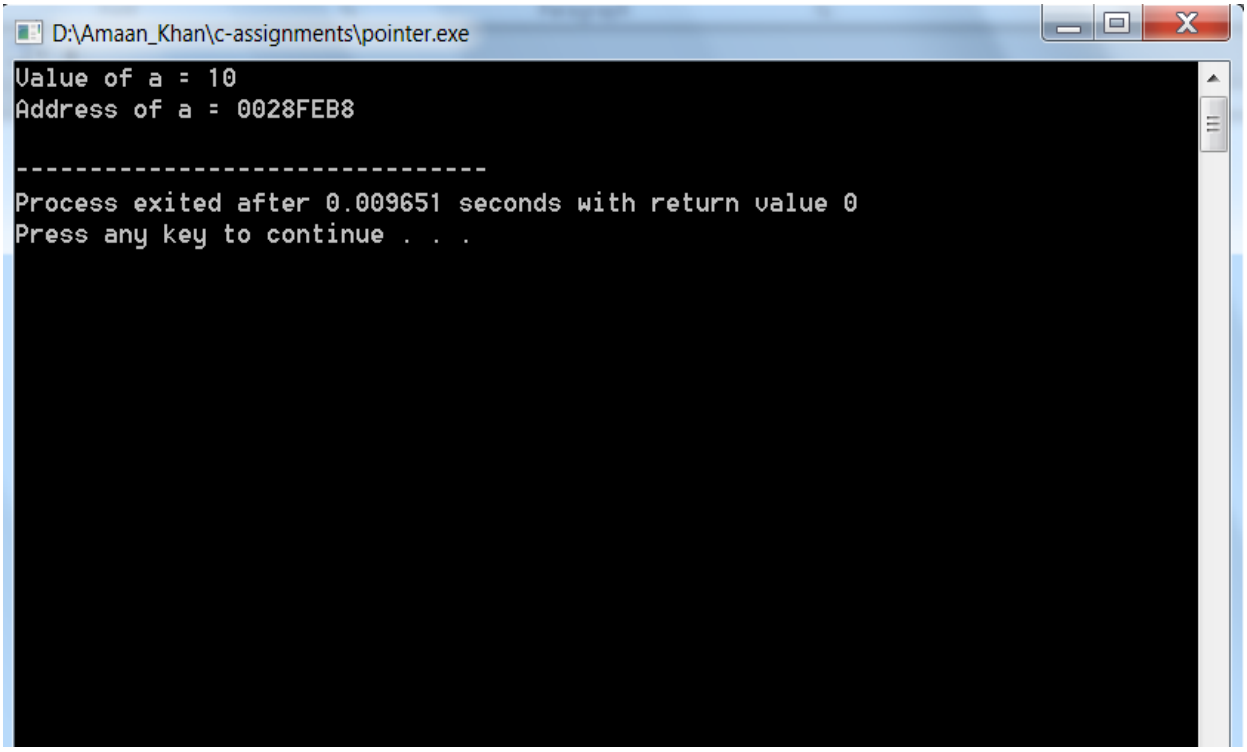
Q.6) Write a C Program using user-defined function to find the sum of two number?





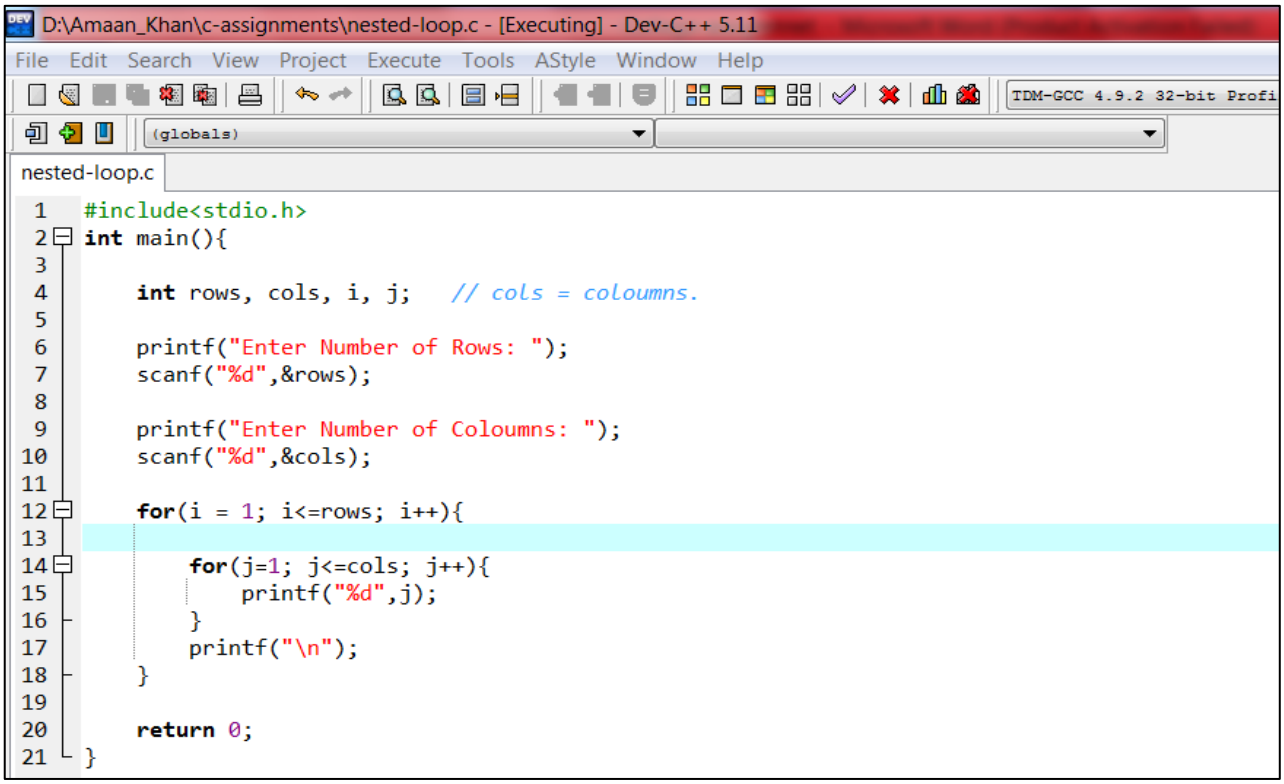
Q.7) write a C Program to display address of a variable using a POINTER?

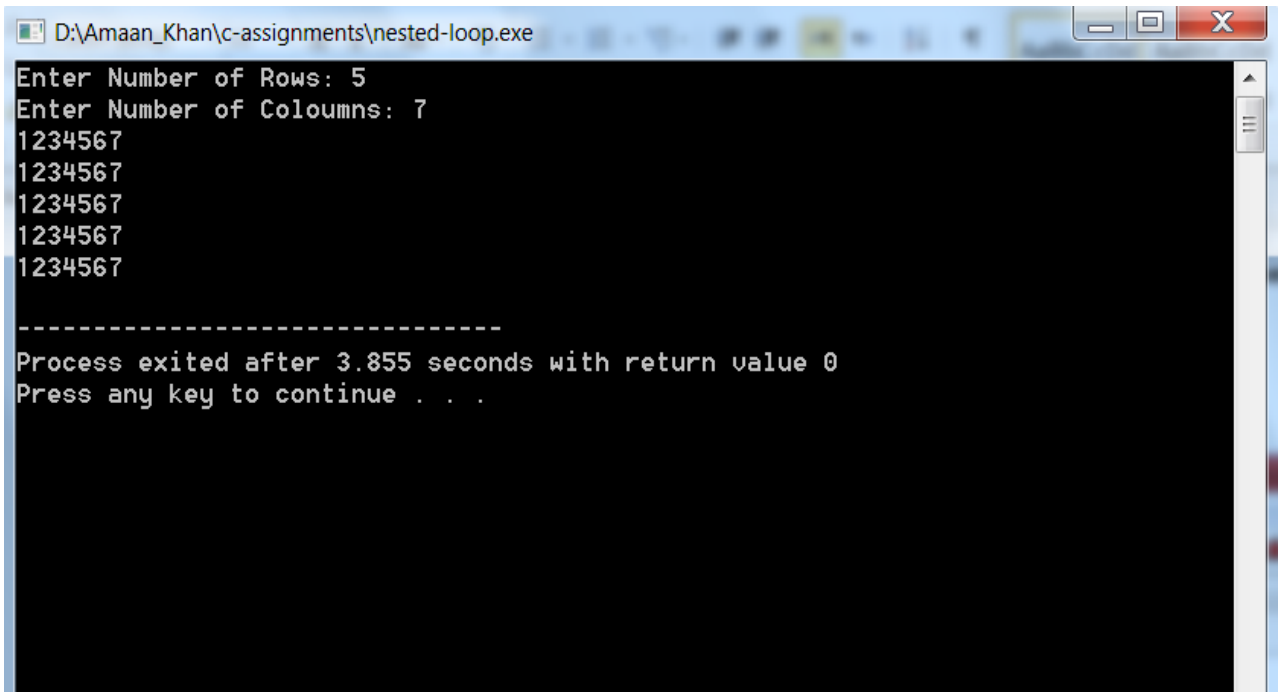




Q.8) write a C Program to print pattern using Nested Loop by taking number of rows

And Columns from the user?





Q.9) write a C Program to store and display element of 2-D Array?

D:\Amaan_Khan\c-assignments\2d-array.c - [Executing] - Dev-C++ 5.11

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TDM-GCC 4.9.2 32-bit

(globals)

[*] 2d-array.c

```c
#include<stdio.h>
int main(){

    int a[2][3] = { {1,2,3}, {4,5,6} };

    int i,j;

    printf("2-D Array elements: \n");

    for(i=0;i<2;i++){

        for(j=0;j<3;j++){
            printf("%d",a[i][j]);

        }

        printf("\n");
    }

        return 0;
}
```

D:\Amaan_Khan\c-assignments\2d-array.exe

```
2-D Array elements:
1 2 3
4 5 6

--------------------------------
Process exited after 0.01771 seconds with return value 0
Press any key to continue . . .
```

Q.10) write a C Program to Perform basic arithmetic aperation using switch case. (Basic Calculator)?

D:\Amaan_Khan\c-assignments\switchcase-basic-calculator.c - Dev-C++ 5.11

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TDM-GCC 4.9.2 32-bit Profiling

(globals)

[*] switchcase-basic-calculator.c

```c
#include <stdio.h>
int main() {
    int a, b;
    char op;   // op = operator

    printf("Enter 1st Number: ");
    scanf("%d", &a);

    printf("Enter 2nd Number: ");
    scanf("%d", &b);

    printf("Enter Operator (+, -, *, /): ");
    scanf(" %c", &op);

    switch (op) {

        case '+':
            printf("Result = %d", a + b);
            break;

        case '-':
            printf("Result = %d", a - b);
            break;

        case '*':
            printf("Result = %d", a * b);
            break;

        case '/':
            if (b != 0) {
                printf("Result = %d", a / b);
            } else {
                printf("Division by Zero Not Allowed");
            }
            break;

        default:
            printf("Invalid Operator");
    }
    return 0;
}
```

D:\Amaan_Khan\c-assignments\switchcase-basic-calculator.exe

```
Enter 1st Number: 10
Enter 2nd Number: 5
Enter Operator (+, -, *, /): *
Result = 50
--------------------------------
Process exited after 9.108 seconds with return value 0
Press any key to continue . . .
```

Q.11) 1. Converting degrees Celsius to Fahrenheit and vice versa?

D:\Amaan_Khan\c-assignments\fahrenheitTocelsius.c - [Executing] - Dev-C++ 5.11

File Edit Search View Project Execute Tools AStyle Window Help

[*] fahrenheitTocelsius.c

```c
//  assignment for conveting celsius to farenheit.
//  Developed by Amaan Khan(BCA Fy) .
    #include<stdio.h>
    int main(){
        int user_choice;
        float fahrenheit;
        float celsius;

        printf("Hello, There\n");
        printf("Welcome to Temperature Converter Program.\n");
        printf("Press: 1 To convert Celsius to Fahrenheit\n");
        printf("Press: 2 To convert Fahrenheit to Celsius\n");
        printf("Enter Your Choice: ");
        scanf("%d",&user_choice);


        printf("You chose option: %d\n",user_choice);
        if(user_choice==1){
            printf("Enter Celsius Input: ");
            scanf("%f",&celsius);

            fahrenheit = ( celsius * 9.0/5) + 32;
            printf("your result = %.2f", fahrenheit);
            }
        else if(user_choice==2){
            printf("Enter you Farenheit Input: ");
            scanf("%f", &fahrenheit);



            celsius = (fahrenheit - 32) * 5.0/9;
            printf("Your Result Is: %.2f", celsius);

            }
        else{
            printf("Invalid choice. Please Run Program again");
        }

        printf("\nThank Your for using Convert programme");
        return 0;
    }
```

D:\Amaan_Khan\c-assignments\fahrenheitTocelsius.exe

```
Hello, There
Welcome to Temperature Converter Program.
Press: 1 To convert Celsius to Fahrenheit
Press: 2 To convert Fahrenheit to Celsius
Enter Your Choice: 2
You chose option: 2
Enter you Farenheit Input: 212
Your Result Is: 100.00
Thank Your for using Convert programme
--------------------------------
Process exited after 8.776 seconds with return value 0
Press any key to continue . . .
```

Q.12) 2.Display three input numbers in sorted (non-decreasing) order?

D:\Amaan_Khan\c-assignments\non-decreasingOrder.c - [Executing] - Dev-C++ 5.11

File Edit Search View Project Execute Tools AStyle Window Help

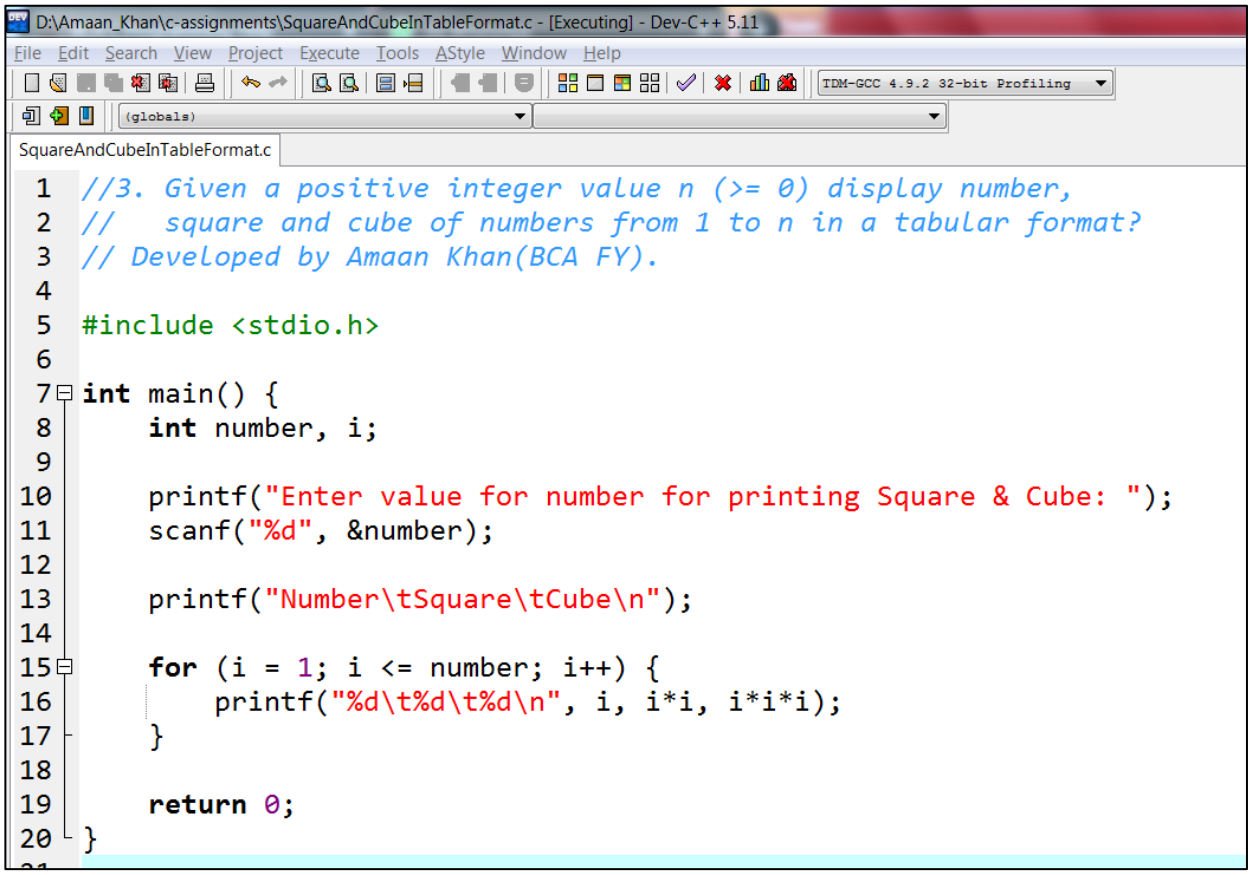
non-decreasingOrder.c

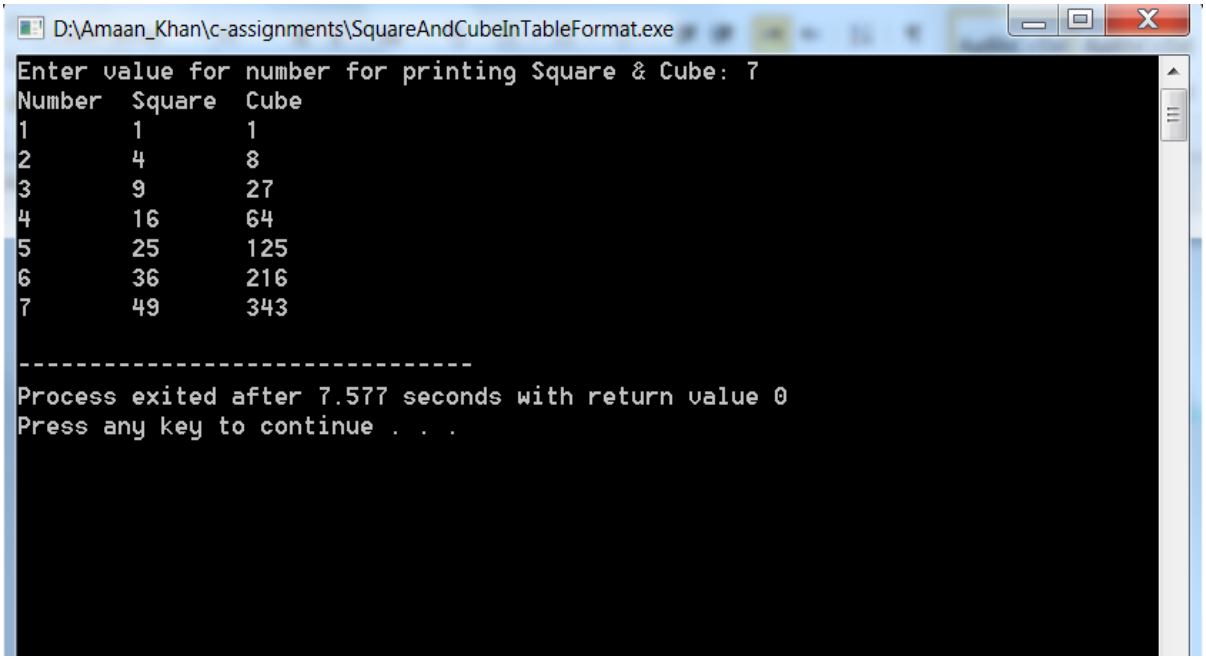
```c
// Display three input numbers in sorted (non-decreasing) order?
//Developed by Amaan Khan (BCA FY).

#include <stdio.h>

int main() {
    int a, b, c;

    printf("Enter three numbers: ");
    scanf("%d %d %d", &a, &b, &c);

    if (a <= b && a <= c) {
        if (b <= c) {
            printf("Sorted order: %d %d %d", a, b, c);
        } else {
            printf("Sorted order: %d %d %d", a, c, b);
        }
    }
    else if (b <= a && b <= c) {
        if (a <= c) {
            printf("Sorted order: %d %d %d", b, a, c);
        } else {
            printf("Sorted order: %d %d %d", b, c, a);
        }
    }
    else {
        if (a <= b) {
            printf("Sorted order: %d %d %d", c, a, b);
        } else {
            printf("Sorted order: %d %d %d", c, b, a);
        }
    }

    return 0;
}
```

D:\Amaan_Khan\c-assignments\non-decreasingOrder.exe

```
Enter three numbers: 65 15 84
Sorted order: 15 65 84
--------------------------------

Process exited after 13.79 seconds with return value 0
Press any key to continue . . .
```

Q.13) 3. Given a positive integer value n (>= 0) display number, square and cube of numbers from 1 to n in a tabular format?





Q.14) 4.Given an input positive integer number, display odd numbers from in the range [1,n]?

D:\Amaan_Khan\c-assignments\odd_numbers_1_to_n.c - [Executing] - Dev-C++ 5.11

File Edit Search View Project Execute Tools AStyle Window Help

[*] odd_numbers_1_to_n.c [*] multiplication_tables.c

```c
// 4. Given an input positive integer number,
// display odd numbers from in the range [1,n]?
// Developed by Amaan Khan.

#include <stdio.h>

int main() {
    int n, i;

    printf("Enter a positive number: ");
    scanf("%d", &n);

    printf("Odd numbers from 1 to %d are:\n", n);

    for (i = 1; i <= n; i++) {
        if (i % 2 != 0) {
            printf("%d ", i);
        }
    }

    return 0;
}
```

D:\Amaan_Khan\c-assignments\odd_numbers_1_to_n.exe

```
Enter a positive number: 10
Odd numbers from 1 to 10 are:
1 3 5 7 9
--------------------------------
Process exited after 4.656 seconds with return value 0
Press any key to continue . . .
```

Q15) 5. Display first mathematical tables, each table up to 10 rows? Generalize this to display first n (> 0) mathematical tables up to m (m > 0) rows?

D:\Amaan_Khan\c-assignments\multiplication_tables.c - [Executing] - Dev-C++ 5.11

File Edit Search View Project Execute Tools AStyle Window Help

[*] multiplication_tables.c

```c
// 5. Display first mathematical tables, each table up to 10 rows?
//Generalise this to display first n (> 0)
//mathematical tables up to m (m > 0) rows?

// Developed by Amaan Khan (BCA FY)

#include <stdio.h>

int main() {
    int n, m, i, j;

    printf("Enter number of tables (n): ");
    scanf("%d", &n);

    printf("Enter number of rows (m): ");
    scanf("%d", &m);

    for (i = 1; i <= n; i++) {
        printf("\nTable of %d\n", i);

        for (j = 1; j <= m; j++) {
            printf("%d x %d = %d\n", i, j, i * j);
        }
    }

    return 0;
}
```

D:\Amaan_Khan\c-assignments\multiplication_tables.exe

```
Enter number of tables (n): 2
Enter number of rows (m): 10

Table of 1
1 x 1 = 1
1 x 2 = 2
1 x 3 = 3
1 x 4 = 4
1 x 5 = 5
1 x 6 = 6
1 x 7 = 7
1 x 8 = 8
1 x 9 = 9
1 x 10 = 10

Table of 2
2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
```