

PRAVEEN AGARWAL

B.TECH-CSE

ROLL NO. 46

SECTION-G2

```
1 //Copy Array Using Pointers
2 #include <stdio.h>
3 #define MAX_SIZE 100 // Maximum array size
4 void printArray(int arr[], int size); //Function declaration to print array
5
6 int main(){
7     int source_arr[MAX_SIZE], dest_arr[MAX_SIZE];
8     int size, i;
9     int *source_ptr = source_arr; // Pointer to source_arr
10    int *dest_ptr = dest_arr; // Pointer to dest_arr
11    int *end_ptr;
12
13    printf("Enter size of array: "); //Input size and elements in source array
14    scanf("%d", &size);
15    printf("Enter elements in array: ");
16    for (i = 0; i < size; i++){
17        scanf("%d", (source_ptr + i));
18    }
19
20    end_ptr = &source_arr[size - 1]; // Pointer to last element of source_arr
21    printf("\nSource array before copying: "); //Print source and destination array before copying
22    printArray(source_arr, size);
23    printf("\nDestination array before copying: ");
24    printArray(dest_arr, size);
25
26    while(source_ptr <= end_ptr){ //Run loop till source_ptr exists in source_arr
27        dest_ptr = source_ptr; // memory range.
28        source_ptr++; //Increment source_ptr and dest_ptr
29        dest_ptr++;
30    }
31
32    printf("\n\nSource array after copying: "); // Print source and destination array after copying
33    printArray(source_arr, size);
34    printf("\nDestination array after copying: ");
35    printArray(dest_arr, size);
36    return 0;
37}
38
39 void printArray(int *arr, int size){ //Function to print array elements.
40     int i; // @arr Integer array to print.
41     for (i = 0; i < size; i++){ // @size Size of array.
42         printf("%d, ", *(arr + i));
43     }
44 }

```

Compiler Resources Close

Abort Compilation

- Warnings: 0
- Output Filename: C:\Users\subha\Documents\c assignment\Fract
- Output Size: 129.67734375 KiB
- Compilation Time: 0.25s

Shorten compiler paths

Source array before copying: 1, 2, 3,
Destination array before copying: 1325400143, 2097251, 7536737,

Source array after copying: 1, 2, 3,
Destination array after copying: 1, 2, 3,

Process exited after 4.917 seconds with return value 0
Press any key to continue . . .

49(b).SwapTwoNo.UsingCallByReferenc.cpp

```
1 //Swap Two No. Using Call By Reference
2 #include <stdio.h>
3 void swap(int * num1, int * num2); //Swap function declaration
4 int main(){
5     int num1, num2;
6     printf("Enter two numbers: "); //Input numbers
7     scanf("%d%d", &num1, &num2);
8     printf("Before swapping in main n"); //Print original values of num1 and num2
9     printf("Value of num1 = %d \n", num1);
10    printf("Value of num2 = %d \n\n", num2);
11    swap(&num1, &num2); //Pass the addresses of num1 and num2
12    printf("After swapping in main n"); //Print the swapped values of
13    printf("Value of num1 = %d \n", num1);
14    printf("Value of num2 = %d \n\n", num2);
15    return 0;
16 }
17 void swap(int * num1, int * num2){ // Function to swap two numbers
18     int temp;
19     temp = *num1; // Copy the value of num1 to some temp variable
20     *num1 = *num2; // Copy the value of num2 to num1
21     *num2 = temp; // Copy the value of num1 stored in temp to num2
22     printf("After swapping in swap function n");
23     printf("Value of num1 = %d \n", *num1);
24     printf("Value of num2 = %d \n\n", *num2);
25 }
```

C:\Users\subha\Documents\c x + v - □

3
Before swapping in main nValue of num1 = 2
Value of num2 = 3

After swapping in swap function nValue of num1 = 3
Value of num2 = 2

After swapping in main nValue of num1 = 3
Value of num2 = 2

Process exited after 4.992 seconds with return value
0
Press any key to continue . . . |

49(a) SwapTwoNoUsingCallByValue.cpp

```
1 // Call by Value Example - Swapping 2 numbers using Call by Value
2 #include <stdio.h>
3 void swap(int, int);
4 int main(){
5     int x, y;
6     printf("Enter the value of x and y\n");
7     scanf("%d%d", &x, &y);
8     printf("Before Swapping\nx = %d\ny = %d\n", x, y);
9     swap(x, y);
10    printf("After Swapping\nx = %d\ny = %d\n", x, y);
11    return 0;
12 }
13 void swap(int a, int b){
14     int temp;
15     temp = b;
16     b = a;
17     a = temp;
18     printf("Values of a and b is %d %d\n", a, b);
19 }
```

C:\Users\subha\Documents\c Enter the value of x and y
2
3
Before Swapping
x = 2
y = 3
Values of a and b is 3 2
After Swapping
x = 2
y = 3

Process exited after 3.727 seconds with return value 0

48.Add Two No. Using Pointers.cpp

```

1 //Add Two No. Using Pointers
2 #include<stdio.h>
3 int main(){
4     int *p,*q,a,b,r;
5     printf("Enter the num1: ");
6     scanf("%d",&a);
7     printf("Enter the num2: ");
8     scanf("%d",&b);
9     p=&a; //Giving address of var
10    q=&b;
11    r=*p+*q;
12    printf("The sum of no.: %d",r);
13 //    printf("The sum of no. %d & %d is: %d.",a,b,*r);
14    return 0;
15 }

```

```

Enter the num1: 1
Enter the num2: 23
The sum of no.: 24
-----
Process exited after 3.741 seconds with return value
0
Press any key to continue . . .

```

47.No.Prime,Armstrong_PerfectOrNot.cpp

```

1 //Program To Check A No. Is Armstrong, Perfect, And Prime Or NOT
2 #include <stdio.h>
3 #include <math.h>
4 int isPrime(int num); //Function declarations
5 int isArmstrong(int num);
6 int isPerfect(int num);
7 int main(){
8     int num;
9     printf("Enter any number: ");
10    scanf("%d", &num);
11    if(isPrime(num)){ // Call isPrime() functions
12        printf("%d is Prime number.\n", num);
13    }
14    else{
15        printf("%d is not Prime number.\n", num);
16    }
17    if(isArmstrong(num)){ // Call isArmstrong() Function
18        printf("%d is Armstrong number.\n", num);
19    }
20    else{
21        printf("%d is not Armstrong number.\n", num);
22    }
23    if(isPerfect(num)){ // Call isPerfect() Function
24        printf("%d is Perfect number.\n", num);
25    }
26    else{
27        printf("%d is not Perfect number.\n", num);
28    }
29    return 0;
30 }
31 int isPrime(int num){ // check whether a number is prime or not.
32     int i;
33     for(i=2; i<=num/2; i++){
34         if(num% i == 0){
35             return 0;
36         }
37     }
38 }

```

```

Enter any number: 23
23 is Prime number.
23 is not Armstrong number.
23 is not Perfect number.
-----
Process exited after 4.795 seconds with return value 0
Press any key to continue . . .

```

46.ProgramToFindDiameterAreaCircumferenceOfGivenRadius.cpp

```

1 //Program To Find Diameter, Area&Circumference Of A Circle Given Radius
2 #include <stdio.h>
3 #include <math.h> // Used for constant PI referred as M_PI
4 double getDiameter(double radius); //Function declaration
5 double getCircumference(double radius);
6 double getArea(double radius);
7 int main( {
8     float radius, dia, circ, area;
9     printf("Enter radius of circle: "); //Taking Radius Of A Circle
10    scanf("%f", &radius);
11    dia = getDiameter(radius); // Call getDiameter function
12    circ = getCircumference(radius); // Call getCircumference fun
13    area = getArea(radius); // Call getArea function
14    printf("Diameter of the circle = %2f units\n", dia);
15    printf("Circumference of the circle = %2f units\n", circ);
16    printf("Area of the circle = %2f sq. units", area);
17 }
18 }
19 double getDiameter(double radius){
20     return (2 * radius);
21 }
22 double getCircumference(double radius) {
23     return (2 * M_PI * radius);
24 }
25 double getArea(double radius){
26     return (M_PI * radius * radius);
27 }

```

```

Enter radius of circle: 3
Diameter of the circle = 6.00 units
Circumference of the circle = 18.85 units
Area of the circle = 28.27 sq. units
Process exited after 1.688 seconds with return value 0
Press any key to continue . . .

```



The screenshot shows a Windows desktop environment. On the left, there is a code editor window titled "45.CountFrequencyOfAGivenString.cpp" containing C++ code. On the right, there is a terminal window titled "C:\Users\subha\Documents\c" showing the execution of the program.

```
1 // Count Frequency Of A Given String
2 #include<stdio.h>
3 int main(){
4     char str[20],a;
5     int c=0,i;
6     printf("Enter a string: ");
7     gets(str);
8     printf("Enter a character to count its frequency: ");
9     scanf("%c",&a);
10    for(i=0;str[i]!='\0';i++){
11        if(a==str[i]){
12            c++;
13        }
14    }
15    printf("%c occur %d times.",a,c);
16    return 0;
17 }
```

```
Enter a string: aa
Enter a character to count its frequency: a
a occur 2 times.

Process exited after 7.745 seconds with return value 0
Press any key to continue . . .
```

```
44.StringIsPalindromeOrNot.cpp
1 //Checking A String Is Palindrom Or Not.....Without Using String Functions
2 #include<stdio.h>
3 #include<string.h>
4 int main(){
5     char str[100];
6     int i ,flag=0 ,len;
7     printf("Enter the string to check palindrome or not: ");
8     gets(str);
9     len=strlen(str);
10    for(i=0;i<len;i++){
11        if(str[i]==str[len-i-1]){
12            flag=1;
13            break;
14        }
15    }
16    if(flag==0)
17        printf(" PALINDROME!! ");
18    else
19        printf(" NOT A PALINDROME!! ");
20}
21
```



C:\Users\subha\Documents\c Enter the string to check palindrome or not: 141 PALINDROME!! Process exited after 4.468 seconds with return value 0 Press any key to continue . . . |

The screenshot shows a C IDE interface with the following details:

- Toolbar:** Compiler, Resources, Compile Log, Debug, Find Results, Close.
- File:** 43.AllStringOperations.cpp
- Code:** A C program demonstrating various string manipulation functions. The code includes declarations for two character arrays, str1 and str2, both of size 40. It prompts the user to enter two strings, then prints them, their uppercase versions, lowercase versions, reversed versions, copies of the first string, and the concatenation of both strings.
- Output Window:** Shows the console output for the entered strings "aa" and "bb". The output includes:
 - String 1 = aa & String 2 = bb
 - Uppercase is : aa and bb
 - Lowercase is : aa and bb
 - Reverse is : bb and aa
 - String copy is : aa
 - Concatenation is : aabb

```
String 1 : aa and String 2 : bb  
Uppercase is : AA and BB  
Lowercase is : aa and bb  
Reverse is : aa and bb  
String copy is : bb  
Concatenation is : bbbb  
-----  
Process exited after 9.263 seconds with return value 0  
Press any key to continue . . .
```

42.MergingOfTwoArrays.cpp

```

1 // Merging Of Two Arrays
2 #include<stdio.h>
3 #include<conio.h>
4 int main(){
5     int arr1[50], arr2[50], size1, size2, i, k, merge[100];
6     printf("Enter Array 1 Size: ");
7     scanf("%d", &size1);
8     for(i=0; i<size1; i++){
9         scanf("%d", &arr1[i]);
10        merge[i] = arr1[i];
11    }
12    k = i;
13    printf("\nEnter Array 2 Size: ");
14    scanf("%d", &size2);
15    printf("Enter Array 2 Elements: ");
16    for(i=0; i<size2; i++){
17        scanf("%d", &arr2[i]);
18        merge[k] = arr2[i];
19        k++;
20    }
21    printf("\nThe new array after merging is:\n");
22    for(i=0; i<k; i++)
23        printf("%d ", merge[i]);
24    return 0;
25 }
```

```

C:\Users\subha\Documents\c> Enter Array 1 Size: 4
Enter Array 1 Elements: 1
2
3
4

Enter Array 2 Size: 3
Enter Array 2 Elements: 2
3

The new array after merging is:
1 2 3 4 2 3 3
-----
Process exited after 23.55 seconds with return value 0
Press any key to continue . . .

```

41.IdentityMatrixOrNot.cpp

```

1 // Check Whether A Matrix Is Identity Matrix Or Not
2 #include<stdio.h>
3 int main(){
4     int a[2][2], i, j, flag=0;
5     for(i=0; i<2; i++){
6         for(j=0; j<2; j++){
7             printf("Enter the value of index%d%d of Matrix1: ", i, j);
8             scanf("%d", &a[i][j]);
9         }
10    for(i=0; i<2; i++){
11        for(j=0; j<2; j++){
12            if(i==j && a[i][j]==1){
13                flag=1;
14            }
15            else if(i!=j && a[i][j]!=1)
16                flag=0;
17        }
18    }
19    if(flag==1){
20        printf("IDENTITY MATRIX!!!");
21    }
22    else{
23        printf("NOT A IDENTITY MATRIX!!!");
24    }
25 }
```

```

C:\Users\subha\Documents\c> Enter the value of index00 of Matrix1: 1
Enter the value of index01 of Matrix1: 2
Enter the value of index10 of Matrix1: 3
Enter the value of index11 of Matrix1: 4
NOT A IDENTITY MATRIX!!
-----
Process exited after 7.9 seconds with return value 0
Press any key to continue . . .

```

40(b).SparseMatrixOrNot.cpp

```

1 // Sparse Matrix Or Not
2 #include<stdio.h>
3 int main(){
4     int n, m, i, j, count=0;
5     printf("Enter the size of rows: ");           //Taking Size Of Rows
6     scanf("%d", &n);
7     printf("Enter the size of column: ");          //Taking Size Of Column
8     scanf("%d", &m);
9     int a[n][m];                                //Declaring 2DArray
10    for(i=0; i<n; i++){
11        for(j=0; j<m; j++){                      //Taking Values Of Element
12            printf("Enter the values of index%d%d: ", i, j);
13            scanf("%d", &a[i][j]);
14        }
15    for(i=0; i<n; i++){
16        for(j=0; j<m; j++){
17            printf("%d ", a[i][j]);               //Printing The Output
18            if(a[i][j]==0)                      //Checking Each Element For zero
19                count++;
20        }
21    printf("\n");
22    if(count>m*n/2)
23        printf("sparse matrix!!!");
24    else
25        printf("NOT A SPARSE MATRIX!!!");
26    return 0;
27 }
```

```

C:\Users\subha\Documents\c> Enter the size of rows: 3
Enter the size of column: 3
Enter the values of index00: 12
Enter the values of index01: 23
Enter the values of index02: 3
Enter the values of index10: 4
Enter the values of index11: 5
Enter the values of index12: 67
Enter the values of index20: 7
Enter the values of index21: 4
Enter the values of index22: 3
12 23 3
4 5 67
7 4 3
NOT A SPARSE MATRIX!!
-----
Process exited after 12.14 seconds with return value 0
Press any key to continue . . .

```

```

1 //Find Out Transpose Of A Matrix
2 #include<stdio.h>
3 int main(){
4     int n,m,i,j;
5     printf("Enter the size of rows: ");           //Taking Size Of
6     scanf("%d",&n);
7     printf("Enter the size of column: ");
8     scanf("%d",&m);
9     int a[n][m];
10    for(i=0;i<n;i++){                           //Inputting Values Of Elements
11        for(j=0;j<m;j++){
12            printf("Enter the value of index%d%d: ",i,j);
13            scanf("%d",&a[i][j]);
14        }
15    }
16    for(i=0;i<n;i++){
17        for(j=0;j<m;j++){
18            printf("%d ",a[i][j]);
19        }
20        printf("\n");
21    }
22    printf("Array Transpose Are!!\n");
23    for(i=0;i<m;i++){
24        for(j=0;j<n;j++){
25            printf("%d ",a[j][i]);
26        }
27        printf("\n");
28    }
29 }

```

Enter the value of index00: 1
Enter the value of index01: 2
Enter the value of index02: 3
Enter the value of index10: 4
Enter the value of index11: 5
Enter the value of index12: 6
Enter the value of index20: 7
Enter the value of index21: 3
Enter the value of index22: 9
1 2 3
4 5 6
7 3 9
Array Transpose Are!!
1 4 7
2 5 3
3 6 9

Process exited after 15.04 seconds with return value 0
Press any key to continue . . . |

```

38.ScalarMatrixMultiplications.cpp
1 //Scalar Matrix Multiplication
2 #include <stdio.h>
3 #define SIZE 3 // Maximum size of the array
4 int main(){
5     int num,n,i,j;
6     printf("Enter the size of array: ");
7     scanf("%d",&n);
8     int A[n][n];
9     for(i=0;i<n;i++){
10        for(j=0;j<n;j++){
11            printf("Enter the value of index%d%d: ",i,j);
12            scanf("%d",&A[i][j]);
13        }
14    }
15    printf("Enter any number to multiply with matrix A: ");
16    scanf("%d",&num);
17    for(i=0;i<n;i++){
18        for(j=0;j<n;j++){
19            A[i][j]=num*A[i][j];
20        }
21    }
22    printf("\nResultant matrix c.A = \n");
23    for(i=0;i<n;i++){
24        for(j=0;j<n;j++){
25            printf("%d ",A[i][j]);
26        }
27        printf("\n");
28    }
29    return 0;
30 }

```

Enter the size of array: 3
Enter the value of index00: 1
Enter the value of index01: 2
Enter the value of index02: 3
Enter the value of index10: 4
Enter the value of index11: 5
Enter the value of index12: 6
Enter the value of index20: 7
Enter the value of index21: 8
Enter the value of index22: 9
Enter any number to multiply with matrix A: 4
Resultant matrix c.A =
4 8 12
16 20 24
28 32 36

Process exited after 15.22 seconds with return value 0
Press any key to continue . . . |

```

37.ProgramToDeleteDuplicateElementInAnArray.cpp
1 //Program To Remove Duplicate Element In An Array
2 #include <stdio.h>
3 #define MAX_SIZE 100 // Maximum array size
4 int main()
5 {
6     int arr[MAX_SIZE];
7     int i, j, size, count = 0;
8     printf("Enter size of the array : ");      //Taking Size Of AN Array
9     scanf("%d",&size);
10    for(i=0;i<size;i++){                     //Taking Value Of Element IN An Array
11        printf("Enter the value of index%d: ",i);
12        scanf("%d",&arr[i]);
13    }
14    for(i=0; i < size; i++){
15        for(j=i+1; j < size; j++){           //Checkm For Duplicate Element
16            if(arr[i] == arr[j]){
17                count++;
18                break;
19            }
20        }
21    }
22    printf("\nTotal number of duplicate elements found in array = %d", count);
23    return 0;
24 }

```

Enter size of the array : 4
Enter the value of index0: 1
Enter the value of index1: 2
Enter the value of index2: 3
Enter the value of index3: 4
Total number of duplicate elements found in array = 0

Process exited after 5.785 seconds with return value 0
Press any key to continue . . . |

Abort Compilation
- Warnings: 0
- Output Filename: C:\Users\subha\Documents\c\ProgramToDeleteDuplicateElementInAnArray.exe
- Output Size: 128.6484378
- Compilation Time: 0.19s
Shorten compiler paths

line: 1 Col: 1 Sel: 0 Lines: 24 Length:
1 2 3 4

Process exited after 5.785 seconds with return value 0
Press any key to continue . . . |

36(a).SecondLargestNo.cpp

```

1 //Program To Find Second Largest No.
2 #include <stdio.h>
3 int main(){
4     int i,j,a,n,counter,ave,number[30];
5     printf ("Enter the limit: ");
6     scanf ("%d",&n);
7
8     for (i=0; i<n; ++i){
9         printf ("Enter the value of index%d: ");
10        scanf ("%d",&number[i]);
11        for (j=i+1; j<n; ++j){
12            if (number[i] < number[j]){
13                int temp = number[i];
14                number[i] = number[j];
15                number[j] = temp;
16            }
17        }
18    }
19
20    printf ("The numbers arranged in descending order are:\n");
21    for (i=0; i<n; ++i)
22        printf ("%d",number[i]);
23    printf ("\nThe 2nd largest number is = %d", number[1]);
24    printf ("\nThe 2nd smallest number is = %d", number[n-2]);
25    ave = (number[1] + number[n-2])/2;
26    counter = 0;
27    for (i=0; i<n; ++i){
28        if (ave==number[i])
29            ++counter;
30    }
31    if (counter==0)
32        printf ("\nthe average of 2nd largest & 2nd smallest is not in the array");
33    else
34        printf ("\nthe average of 2nd largest & 2nd smallest in array is %d in numbers", counter);
35 }

```

```

C:\Users\subha\Documents\c X + - □ ×
Enter the value of index1847233024: 1
Enter the value of index1847233024: 2
Enter the value of index1847233024: 3
Enter the value of index1847233024: 4
Enter the value of index1847233024: 5
The numbers arranged in descending order are:
      5      4      3      2      1
The 2nd largest number is = 4
The 2nd smallest number is = 2
The average of 2nd largest & 2nd smallest in array is 1 in numbers
-----
Process exited after 7.01 seconds with return value 0
Press any key to continue . . .

```

35.LinearSearchProgram.cpp

```

1 //Linear Search Program
2 #include <stdio.h>
3 int main(){
4     int array[100], search, c, n;
5     printf("Enter the size of an array\n");
6     scanf("%d", &n);
7     printf("Enter %d integer(s)\n", n);
8     for (c=0; c<n; c++) //Taking Value Of Indexes
9         scanf("%d", &array[c]);
10    printf("Enter a number to search\n");
11    scanf("%d", &search);
12    for (c = 0; c < n; c++){
13        if (array[c] == search){ /* If required element is found */
14            printf("%d is present at location %d.\n", search, c+1);
15            break;
16        }
17    }
18    if (c == n)
19        printf("%d isn't present in the array.\n", search);
20    return 0;
21 }

```

```

C:\Users\subha\Documents\c X + - □ ×
Enter the size of an array
5
Enter 5 integer(s)

1
2
3
4
5
Enter a number to search
4
4 is present at location 4.

```

34.ProgramToDeleteElementAtSpecifiedPosit.cpp

```

1 //Program To Delete An Element In Array At Specified Position
2 #include <stdio.h>
3 #define MAX_SIZE 100
4 int main(){
5     int arr[MAX_SIZE];
6     int i, size, pos;
7     printf("Enter size of the array : "); //Input size and element in array
8     scanf("%d", &size);
9     for(i=0; i<size; i++){
10         printf("Enter the value of index[%d]: ", i);
11         scanf("%d", &arr[i]);
12     }
13     printf("Enter the element position to delete : "); //Input element position to delete
14     scanf("%d", &pos);
15     public int __cdecl scan(const char* __restrict__ _Format,...) valid delete position
16     printf( Invalid position Please enter position between 1 to %d , size);
17     else{ //Copy next element value to current element
18         for(i=pos-1; i<size-1; i++){
19             arr[i] = arr[i + 1];
20         }
21         size--;
22         printf("\nElements of array after delete are : "); //Print array after deletion
23         for(i=0; i<size; i++){
24             printf("%d ", arr[i]);
25         }
26     }
27     return 0;
28 }

```

```

C:\Users\subha\Documents\c X + - □ ×
Enter size of the array : 3
Enter the value of index[0]: 1
Enter the value of index[1]: 2
Enter the value of index[2]: 3
Enter the element position to delete :
Elements of array after delete are : 2 3
-----
tSpecifiedPosit.exe

```

33.InsertElementAtGivenPOINT.cpp

```

1 //V/INSERTING AN ELEMENT AT ANY GIVEN INDEX
2 //Program To Insert Any Element At Any Given Point
3 #include<stdio.h>
4 int main(){
5     int n,i,value,pos;
6     printf("Enter the size of an array: ");      //Taking Size Of An Array
7     scanf("%d",&n);
8     int a[n+1];                                //EXTRA BLOCK FOR INSERTION
9     for(i=0;i<n;i++){                         //Taking Value Of Elements
10        printf("Enter the value for index%d: ",i);
11        scanf("%d",&a[i]);
12    }
13    printf("Enter the INDEX to insert an element: ");
14    scanf("%d",&pos);
15    printf("Enter the value of an element: ");
16    scanf("%d",&value);
17    for(i=n;i>pos;i--){
18        a[i]=a[i-1];
19    }
20    a[pos]=value;
21    printf("UPDATED ARRAY!!!");
22    for(i=0;i<=n;i++)
23        printf("%d",a[i]);
24    return 0;
25 }
```

C:\Users\subha\Documents\c .. + X - □ ×

```

Enter the size of an array: 3
Enter the value for index0: 1
Enter the value for index1: 2
Enter the value for index2: 3
Enter the INDEX to insert an element: 2
Enter the value of an element: 5
UPDATED ARRAY!!1235
-----
Process exited after 11.3 seconds with return value 0
Press any key to continue . . .

```

32.CopyingOneArrayElementsTwoAnotherArray.cpp

```

1 //Program To Copy One Array Elements To Another Array
2 #include<stdio.h>
3 int main(){
4     int n,j,i,sum=0;
5     printf("Enter the size of an array: ");      //Taking Size Of An Array
6     scanf("%d",&n);
7     int a[n],b[n];
8     for(i=0;i<n;i++){                         //Taking Value Of Elements
9         printf("Enter the value for index%d: ",i);
10        scanf("%d",&a[i]);
11    }
12    printf("You Entered:....");
13    for(i=0;i<n;i++){
14        printf(" %d ",a[i]);
15        b[i]=a[i];
16    }
17    printf("\nArray after copying:....");
18    for(i=0;i<n;i++){
19        printf(" %d ",b[i]);
20    }
21    return 0;
22 }
```

C:\Users\subha\Documents\c .. + X - □ ×

```

Enter the value for index0: 1
Enter the value for index1: 3
Enter the value for index2: 4
You Entered:....1 3 4
Array after copying:....1 3 4
-----
Process exited after 11.86 seconds with return value 0
Press any key to continue . . .

```

31.SumOfAnArrayElements.cpp

```

1 //SUM OF AN ARRAY ELEMENTS
2
3 #include<stdio.h>
4 int main(){
5     int n,i,sum=0;
6     printf("Enter the size of an array: ");      //Taking Size Of An Array
7     scanf("%d",&n);
8     int a[n];
9     for(i=0;i<n;i++){                         //Taking Value Of Elements
10        printf("Enter the value for index%d: ",i);
11        scanf("%d",&a[i]);
12    }
13    for(i=0;i<n;i++){
14        sum=sum+a[i];
15    }
16    printf("The sum of elements of an array are:%d ",sum);
17 }
```

C:\Users\subha\Documents\c .. + X - □ ×

```

Enter the size of an array: 4
Enter the value for index0: 1
Enter the value for index1: 2
Enter the value for index2: 3
Enter the value for index3: 4
The sum of elements of an array are:10
-----
Process exited after 5.196 seconds with return value 0
Press any key to continue . . .

```

```

30.Pascal's Triangle.cpp
1 /*Pascal's Triangle Printing
2          1      1
3          1      2      1
4          1      3      3      1
5          1      4      6      4      1 */
6 #include<stdio.h>
7
8 int main(){
9     int row,i,j,space,coef=0;
10    printf("Enter the size of rows: ");
11    scanf("%d", &row);
12    for(i=0;i<row;i++){           //For Space Printing
13        for(space=1;space<=row-i;space++) {
14            printf(" ");}
15        for(j=0;j<=i;j++){
16            if(j==0 || i==0)
17                coef=1;
18            else
19                coef=coef*(i-j+1)/j;
20            printf(" %d", coef);
21        }
22        printf("\n");           //For New Line
23    }
24    return 0;
25 }

[*] 29.ProgramToPrintASCIIvalueOfAGivenNo..cpp

```

Output window:

```

C:\Users\subha\Documents\c - Minimize + X
Enter the size of rows: 4
1
1 1
1 2 1
1 3 3 1
-----
Process exited after 1.796 seconds with return value 0
Press any key to continue . . .

```



```

1 //ASCII VALUE FINDING
2 #include <stdio.h>
3 int main(){
4     int n;
5     printf("Enter a character.: ");
6     scanf("%c", &n);
7     printf(" %d", n);
8
9 }

```

Output window:

```

C:\Users\subha\Documents\c - Minimize + X
Enter a no.: a
97
-----
Process exited after 2.195 seconds with return value 0
Press any key to continue . . .

```

```

1 //POWER OF ANY NO.
2 #include <stdio.h>
3 #include<math.h>
4 int main(){
5     int a, b, power;
6     printf("Enter the value: ");
7     scanf("%d", &a);
8     printf("Enter the base value: ");
9     scanf("%d", &b);
10    power=pow(a, b);
11    printf("The power of %d is: %d", a, power);
12 }
13

```

```

C:\Users\subha\Documents\c
Enter the value: 33
Enter the base value: 3
The power of 33 is: 35937
-----
Process exited after 7.601 seconds with return value 0
Press any key to continue . . .

```

```

27.PerfectNo.OrNot.cpp
1 //PERFECT NO. OR NOT
2 #include <stdio.h>
3 int main(){
4     int n,i,sum=0;
5     printf("Enter a no. for checking PERFECT NUM OR NOT: ");
6     scanf("%d", &n);
7     for(i=1;i<=n/2;i++){
8         if(n%i==0){
9             sum=sum+i;
10        }
11    }
12    if(n==sum)
13        printf("PERFECT NO.");
14    else
15        printf("NOT A PERFECT NO.");
16 }
17

```

```

C:\Users\subha\Documents\c
Enter a no. for checking PERFECT NUM OR NOT: 234
NOT A PERFECT NO.
-----
Process exited after 3.834 seconds with return value 0
Press any key to continue . . .

```

```

26.ArmstrongOrNot.cpp
1 //ARMSTRONG NUM OR NOT
2 #include <stdio.h>
3 int main(){
4     int n,temp,rem,c,sum=0;
5     printf("Enter the no. to check whether armstrong or not: ");
6     scanf("%d", &n);
7     temp=n;
8     while(n>0){
9         rem=n%10;
10        c=rem*rem*rem;
11        sum=sum+c;
12        n=n/10;
13    }
14    n=temp;
15    if(n==sum){
16        printf("ARMSTRONG");
17    }
18    else{
19        printf("NOT AN ARMSTRONG");
20    }
21 }
22

```

```

C:\Users\subha\Documents\c
Enter the no. to check whether armstrong or not: 141
NOT AN ARMSTRONG
-----
Process exited after 3.522 seconds with return value 0
Press any key to continue . . .

```

```
25.FibonacciSeriesPrinting.cpp
1 //FIBONACCO SERIES
2 #include<stdio.h>
3 int main(){
4     int n,i,a=0,b=1,c;
5     printf("Enter the limit to find fabinacco series: ");
6     scanf("%d", &n);
7     for(i=1;i<=n;i++){
8         printf(" %d\n", a);
9         c=a+b;
10        a=b;
11        b=c;
12    }
13 }
```

```
C:\Users\subha\Documents\c % + | x
Enter the limit to find fabinacco series: 8
0
1
1
2
3
5
8
13
```

```
24.StrongNoOrRobinsonNoOrNot.cpp
1 //KRISHNAMURTI NUM OR ROBINSON NO OR STRONG NO.
2 #include<stdio.h>
3 int main(){
4     int n,temp,rem,fact,sum=0;
5     printf("Enter a no. for checking whether km or not: ");
6     scanf("%d", &n);
7     temp=n;
8     while(n>0){
9         rem=n%10;
10        fact=1;
11        while(rem>0){
12            fact=fact*rem;
13            rem--;
14        }
15        sum=sum+fact;
16        n=n/10;
17    }
18    //temp=n;
19    if(temp==sum)
20        printf("STRONG NO.");
21    else
22        printf("NOT A STRONG NO.");
23 }
```

```
C:\Users\subha\Documents\c % + | x
Enter a no. for checking whether km or not: 234
NOT A STRONG NO.

Process exited after 2.756 seconds with return value 0
Press any key to continue . . . |
```

```
23.ProgramToCheckNoIsPrimeOrNot.cpp
1 //PRIME no. or not
2 #include <stdio.h>
3 int main(){
4     int n,i,count=0;
5     printf("Enter a no. to check whether PRIME no. or not: ");
6     scanf("%d", &n);
7     for(i=1;i<=n;i++){
8         if(n%i==0){
9             count=count+1;
10        }
11    }
12    if(count==2)
13        printf("PRIME NO.");
14    else
15        printf("NOT PRIME NO.");
16 }
17 }
```

```
C:\Users\subha\Documents\c % + | x
Enter a no. to check whether PRIME no. or not:
34
NOT PRIME NO.

Process exited after 6.288 seconds with return value 0
Press any key to continue . . . |
```

```
22.ProgramToFindLCM_HCF.cpp
1 //Program To Find LCM[Lowest Common Factors] & HCF[Highest C.M] Of To Two Integers
2 #include<stdio.h>
3 int main(){
4     int n,a,b,max,fact=1;
5     printf("Enter first no.: "); //Taking Two No.
6     scanf("%d", &a);
7     printf("Enter second no.: ");
8     scanf("%d", &b);
9     printf("Press 1 for LCM or Press 2 for HCF: "); //Taking Operation Type
10    scanf("%d", &n);
11    max=(a>b)?a:b;
12    if(n==1){ //For LCM
13        while(fact){
14            if(max*a==0 && max*b==0){
15                printf("LCM of %d & %d is: %d\n", a, b, max); //Printing LCM
16                fact=0;
17            }
18            max++;
19        }
20    }else if(n==2){ //For HCF
21        for(max; max>=1; max--){
22            if(a%max==0 && b%max==0){
23                break;
24            }
25        }
26        printf("HCF of %d & %d is: %d", a, b, max); //Printing HCF
27    }
28    else{ //For Inputting Value Other Then 1&2
29        printf("Invalid Operations!!!");
30    }
31 }
```

```
C:\Users\subha\Documents\c % + | x
Enter first no.: 123
Enter second no.: 128
Press 1 for LCM or Press 2 for HCF: 1
LCM of 123 & 128 is: 15744

Process exited after 15.58 seconds with return value 0
Press any key to continue . . . |
```

```

21.CountfrequencyOfAGivenNo.cpp
1 //COUNT FREQUENCY OF A GIVEN ARRAY
2 #include<stdio.h>
3 int main(){
4     int n,i,key,count=0;
5     printf("Enter the size of an array: ");      //Taking Size Of An Array
6     scanf("%d",&n);
7     int a[n];
8     for(i=0;i<n;i++){                         //Taking Value Of Elements
9         printf("Enter the value for index%d: ",i);
10        scanf("%d",&a[i]);
11    }
12    printf("Enter the element to count its frequency: ");
13    scanf("%d",&key);
14    for(i=0;i<n;i++){
15        if(a[i]==key){
16            count++;
17        }
18    }
19    printf("The element occur %d times!!",count);
20 }

```

Enter the size of an array: 5
Enter the value for index0: 1
Enter the value for index1: 2
Enter the value for index2: 2
Enter the value for index3: 2
Enter the value for index4: 3
Enter the element to count its frequency: 2
The element occur 3 times!!
Process exited after 14.94 seconds with return value 0
Press any key to continue . . . |

```

1 //PALINDROME NO.
2 #include<stdio.h>
3 int main(){
4     int n,temp,rem,sum=0;
5     printf("Enter a no. to check whether PALINDROME or not: ");
6     scanf("%d",&n);
7     temp=n;
8     while(n>0){
9         rem=n%10;
10        sum=(sum*10)+rem;
11        n=n/10;
12    }
13    n=temp;
14    if(n==sum)
15        printf(" PALINDROME NO.");
16    else
17        printf(" NOT A PALINFROME NO.");
18 }
21
22

```

Enter a no. to check whether PALINDROME or not: 121
PALINDROME NO.
Process exited after 8.119 seconds with return value 0
Press any key to continue . . . |

```

1 //FACTORIAL FINDING
2 #include <stdio.h>
3 int main(){
4     int n,fact=1;
5     printf("Enter a no to find its factorial: ");
6     scanf("%d",&n);
7     while(n>0){
8         fact=fact*n;
9         n=n-1;
10    }
11    printf(" %d", fact);
12 }
3

```

Enter a no to find its factorial: 5
120
Process exited after 4.194 seconds with return value 0
Press any key to continue . . . |

```

1 //TABLE USING FOR LOOP
2 #include <stdio.h>
3 int main(){
4     int n,i;
5     printf("Enter a num to find its table: ");
6     scanf("%d",&n);
7     for(i=1;i<=10;i++){
8         printf(" %d*%d=%d\n",n,i,n*i);
9     }
10
11

```

4*1=4
4*2=8
4*3=12
4*4=16
4*5=20
4*6=24
4*7=28
4*8=32
4*9=36
4*10=40
Process exited after 2.827 seconds with return value 0
Press any key to continue . . . |

```

1 //CHECKING NO. IS EVEN OR ODD
2 #include <stdio.h>
3 int main(){
4     int n, c=0, i;
5     printf("Enter the limit: ");
6     scanf("%d", &n);
7     for(i=1; i < n; i++){
8         if(i %2==0){
9             printf("\n%d", i);
10            c=c+i;
11        }
12    }
13    printf("\nThe sum of even no. till end is: %d", c);
14    return 0;
15 }

```

V/PROGRAM TO PRINT NATURAL NO. AND FIND ITS SUM

```

1 V/PROGRAM TO PRINT NATURAL NO. AND FIND ITS SUM
2 #include <stdio.h>
3 int main(){
4     int n,i,c=0;
5     printf("Enter the limit: ");
6     scanf("%d", &n);
7     for(i=1; i <=n; i++){
8         printf("%d\n", i);
9         c=c+i;
10    }
11    printf("\nThe sum no. till end is: %d", c);
12    return 0;
13 }

```

```

6
7
8
9
10
The sum no. till end is: 55
-----
Process exited after 3.448 seconds with return value 0
Press any key to continue . . .

```

//Program To Check A Triangle Is Equilateral, Isosceles Or Scalene Triangle

```

1 //Program To Check A Triangle Is Equilateral, Isosceles Or Scalene Triangle
2 #include<stdio.h>
3 int main(){
4     int a,b,c;
5     printf("Enter first side of triangle: ");
6     scanf("%d", &a);
7     printf("Enter second side of triangle: ");
8     scanf("%d", &b);
9     printf("Enter third side of triangle: ");
10    scanf("%d", &c);
11    if(a==b && b==c){
12        printf("\nTriangle is Equilateral");
13    }
14    else if(a==b||b==c||c==a){
15        printf("\nTriangle is Isosceles");
16    }
17    else{
18        printf("\nTriangle is Scalene");
19    }
20    return 0;
21 }

```

```

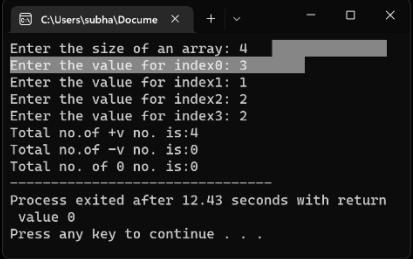
Enter third side of triangle: 4
Triangle is Scalene
-----
Process exited after 9.135 seconds with return value
0
Press any key to continue . . .

```

```

14.Program io\count+ve,-ve\elements.cpp
1 // COUNT +V , -V, Zero
2 #include<stdio.h>
3 int main(){
4     int n,i,count=0,flag=0,red=0;
5     printf("Enter the size of an array: ");      //Taking Size Of An Array
6     scanf("%d",&n);
7     int a[n];
8     for(i=0;i<n;i++){                         //Taking Value Of Elements
9         printf("Enter the value for index%d: ",i);
10        scanf("%d",&a[i]);
11    }
12    for(i=0;i<n;i++){
13        if(a[i]>0){
14            count++;
15        }
16        else if(a[i]<0){
17            flag++;
18        }
19        else {
20            red++;
21        }
22    }
23    printf("Total no.of +v no. is:%d\nTotal no.of -v no. is:%d\nTotal no. of 0 no. is:%d",count,flag,red);
24 } public int __cdecl printf(const char * __restrict__ __format,...)

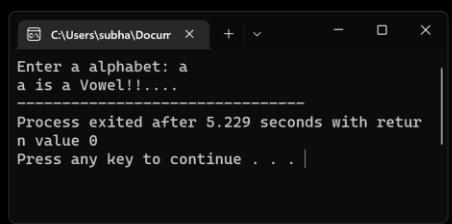
```



```

13.Program ToCheckVowelOrConsonants.cpp
1 V/Program To Check Vowel Or Consonants Using Switch Case
2 #include<stdio.h>
3 int main(){
4     char ch;
5     printf("Enter a alphabet: ");
6     scanf("%c",&ch);
7     if((ch>='A' && ch<='Z')||(ch>='a' && ch<='z')){
8         switch(ch){
9             case 'A':
10                 case 'E':
11                     case 'I':
12                         case 'O':
13                             case 'U':
14                             case 'a':
15                                 case 'e':
16                                     case 'i':
17                                         case 'o':
18                                             case 'u':
19                                                 printf("%c is a Vowel!!....",ch);
20                                                 break;
21                                             default:
22                                                 printf("%c is a Consonant!!....",ch);
23                                         }
24         }
25     else
26         printf("\n %c is not an alphabet!! ",ch);
27     return 0;
28 }

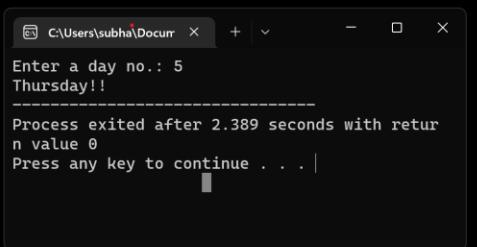
```



```

1 V/Program To Create Days Of Week Using Switch Case
2 #include<stdio.h>
3 int main(){
4     int a;
5     printf("Enter a day no.: ");
6     scanf("%d",&a);
7     switch(a){
8         case 1:printf("Sunday!!");
9             break;
10        case 2:printf("Monday!!");
11            break;
12        case 3:printf("Tuesday!!");
13            break;
14        case 4:printf("Wednesday!!");
15            break;
16        case 5:printf("Thursday!!");
17            break;
18        case 6:printf("Friday!!");
19            break;
20        case 7:printf("Saturday!!");
21            break;
22        default :printf("Invalid Day!!");
23            break;
24     }
25     return 0;
26 }

```



12(b).ProgramToCreateDaysOfWeeksUsingSwitchCase.cpp

```

1 //Program To Create Days Of Week Using Switch Case
2 #include<stdio.h>
3 int main(){
4     int a;
5     printf("Enter a day no.: ");
6     scanf("%d", &a);
7     switch(a){
8         case 1:printf("Sunday!!!");
9             break;
10        case 2:printf("Monday!!!");
11            break;
12        case 3:printf("Tuesday!!!");
13            break;
14        case 4:printf("Wednesday!!!");
15            break;
16        case 5:printf("Thursday!!!");
17            break;
18        case 6:printf("Friday!!!");
19            break;
20        case 7:printf("Saturday!!!");
21            break;
22        default :printf("Invalid Day!!!");
23            break;
24    }
25    return 0;
26 }
```

C:\Users\subha\Documents\c % + - x

Enter a day no.: 7
Saturday!

Process exited after 5.468 seconds with return value 0
Press any key to continue . . . |

11.CalculateTotalElectricityBill.cpp

```

1 //Calculate Electricity Bill
2 #include<stdio.h>
3 int main(){
4     int unit;
5     float total;
6     printf("Enter your electricity unit consumption: ");
7     scanf("%d", &unit);
8     if(unit <= 50)
9         total=unit*0.5;
10    else if(unit <=150)
11        total=(50*0.5)+((unit-50)*0.75);
12    else if(unit <=250)
13        total=(50*0.5)+(100*0.75)+(100*1.2)+((unit-250)*1.5);
14    printf("Your total bill is: Rs.%f",total);
15    return 0;
16 }
```

C:\Users\subha\Documents\c % + - x

Enter your electricity unit consumption: 73
Your total bill is: Rs.42.250000

Process exited after 15.09 seconds with return value 0
Press any key to continue . . . |

10.ProgramToCountAlphabetsDigits_SpecialCharacters.cpp

```

1 //Program To Count Alphabet, Digits & Special Character Using Conditional Operator
2 #include<stdio.h>
3 int main(){
4     char str[20];
5     int i,c1=0,c2=0,c3=0,c4=0;
6     printf("Enter string: ");
7     gets(str);
8     for(i=0;str[i]!='\0';i++){
9         if(str[i]>='A' && str[i]<='Z')
10             c1++;
11         else if(str[i]>='a' && str[i]<='z')
12             c2++;
13         else if(str[i]>='0' && str[i]<='9')
14             c3++;
15         else
16             c4++;
17     }
18     printf("Capital alphabets=%d\nSmall alphabets=%d\nDigits=%d\nSpecial character=%d", c1, c2, c3, c4);
19     return 0;
20 }
```

C:\Users\subha\Documents\c % + - x

Enter string: @I love you 3000#ironman
Capital alphabets=1
Small alphabets=14
Digits=4
Special character=5

Process exited after 59.69 seconds with return value 0
Press any key to continue . . . |

```
9.ProgramToFindMaxNo.UsingTernaryOperator.cpp
1 //Program To Find Max No. Using ternary Operator
2 #include<stdio.h>
3 int main(){
4     int a, b, c, max;
5     printf("Enter first number: ");
6     scanf("%d", &a);
7     printf("Enter second number: ");
8     scanf("%d", &b);
9     printf("Enter third number: ");
10    scanf("%d", &c);
11    max=(a>b && a>c)?(a):((b>c)?(b):(c));
12    printf("Max No. is: %d", max);
13    return 0;
14 }
```

```
Enter first number: 63
Enter second number: 87
Enter third number: 72
Max No. is: 87
-----
Process exited after 25.24 seconds with return value 0
Press any key to continue . . . |
```

```
8(b).SwapTwoNo.ByUsingThirdVariable.cpp
1 //Program To Swap Two No. By Using Third Variable
2 #include<stdio.h>
3 int main(){
4     int a, b, temp;
5     printf("Enter first number value: ");
6     scanf("%d", &a);
7     printf("Enter second number value: ");
8     scanf("%d", &b);
9     printf("a=%d\nb=%d", a, b);
10    temp=a;
11    a=b;
12    b=temp;
13    printf("\nAfter Swapping!!.....");
14    printf("\na=%d\nb=%d", a, b);
15    return 0;
16 }
```

```
Enter first number value: 63
Enter second number value: 64
a=63
b=64
After Swapping!!.....
a=64
b=63
-----
Process exited after 11.36 seconds with return value 0
Press any key to continue . . . |
```

```
8(a).SwapTwoNo.WithoutUsingThirdVariable.cpp
1 //Program To Swap Two No. Without Using Third Variable
2 #include<stdio.h>
3 int main(){
4     int a, b;
5     printf("Enter first number value: ");
6     scanf("%d", &a);
7     printf("Enter second number value: ");
8     scanf("%d", &b);
9     printf("a=%d\nb=%d", a, b);
10    a=a+b;
11    b=a-b;
12    a=a-b;
13    printf("\nAfter Swapping!!.....");
14    printf("\na=%d\nb=%d", a, b);
15    return 0;
16 }
```

```
Enter first number value: 2
Enter second number value: 3
a=2
b=3
After Swapping!!.....
a=3
b=2
-----
Process exited after 6.037 seconds with return value 0
Press any key to continue . . . |
```

```
7(b).ProgramToFindLSB_MSB.cpp
1 //Program To Check MSB
2 #include<stdio.h>
3 #define BITS sizeof(int)*8
4 int main(){
5     int num, msb;
6     printf("Enter the number: ");
7     scanf("%d", &num);
8     msb=1<<(BITS-1);
9     if(num & 1)
10         printf("MSB of %d is set(1).", num);
11     else
12         printf("MSB of %d is unset(0).", num);
13     return 0;
14 }
15
```

Enter the number: 5
MSB of 5 is set(1).

Process exited after 3.013 seconds with return value 0
Press any key to continue . . . |

```
7(a).ProgramToFindLSB_MSB.cpp
1 //Program To Check LSB
2 #include<stdio.h>
3 int main(){
4     int num;
5     printf("Enter the number: ");
6     scanf("%d", &num);
7     if(num & 1)
8         printf("LSB of %d is set(1).", num);
9     else
10        printf("LSB of %d is unset(0).", num);
11    return 0;
12 }
13
```

Enter the number: 10
LSB of 10 is unset(0).

Process exited after 16.66 seconds with return value 0
Press any key to continue . . . |

```
5.Power_SqrtOfGivenNum.cpp 6.ProgramToFindTotalAvgPercentage_Grade.cpp
1 //Program To Find Total, Average, Percentage & Grade Of Five Subjects Marks
2 #include<stdio.h>
3 int main(){
4     int a,b,c,d,e,total,avg,p;
5     printf("Enter marks of first subject: ");
6     scanf("%d", &a);
7     printf("Enter marks of second subject: ");
8     scanf("%d", &b);
9     printf("Enter marks of third subject: ");
10    scanf("%d", &c);
11    printf("Enter marks of fourth subject: ");
12    scanf("%d", &d);
13    printf("Enter marks of fifth subject: ");
14    scanf("%d", &e);
15    total=a+b+c+d+e;
16    avg=total/5;
17    p=total/5;
18    printf("Total=%d\nAverage=%d\nPercentage=%d%", total, avg, p, 37);
19    if(p<100 && p>=90){
20        printf("Grade=A!!");
21    }
22    else if(p<89 && p>=80){
23        printf("Grade=B!!");
24    }
25    else if(p<79 && p>=60){
26        printf("Grade=C!!");
27    }
28    else if(p<59 && p>=40){
29        printf("Grade= D!!");
30    }
31    else if(p<39 && p>=27){
32        printf("Grade=E!!");
33    }
34    else
35        printf("Better Luck Next Time!!");
36    return 0;
37 }
38
39
```

Enter marks of first subject: 72
Enter marks of second subject: 61
Enter marks of third subject: 56
Enter marks of fourth subject: 90
Enter marks of fifth subject: 76
Total=355
Average=71
Percentage=71%Grade=C!!

Process exited after 93.21 seconds with return value 0
Press any key to continue . . . |

```
1 //Program To Find Power & Square Root Of Any No.
2 #include<stdio.h>
3 #include<math.h>
4 int main(){
5     int a,expo,c,i,d;
6     printf("Enter a no.: ");
7     scanf("%d",&a);
8     d=sqrt(a);
9     printf("The square root of given no. is: %d",d);
10    printf("\nEnter a exponential power for finding power of given num: ");
11    scanf("%d",&expo);
12    for(i=0;i<expo;i++){
13        c=a*a;
14    }
15    printf("The power of given no. is: %d",c);
16    return 0;
17 }
```

```
-----  
- Errors: 0  
- Warnings: 0
```

```
C:\Users\subha\Documents\c  
Enter a no.: 25
The square root of given no. is: 5
Enter a exponential power for finding power of given num
: 4
The power of given no. is: 625
-----  
Process exited after 11.2 seconds with return value 0
Press any key to continue . . . |
```

```
1 //Program To Convert Days Into Year Weeks & Days
2 #include<stdio.h>
3 int main(){
4     int a,years,weeks,days;
5     printf("Enter the total days: ");
6     scanf("%d",&a);
7     years=a/365;
8     weeks=(a%365)/7;
9     days=a-((years*365)+(weeks*7));
10    printf("%d = %d years, %d weeks, %d days\n",a,years,weeks,days);
11 }
12
```

```
C:\Users\subha\Documents\c  
Enter the total days: 400
400 = 1 years, 5 weeks, 0 days
-----  
Process exited after 27.33 seconds with return value 0
Press any key to continue . . . |
```

```

1 //Program To Find Third Angle Of A Triangle
2 #include<stdio.h>
3 int main(){
4     int a,b,c;
5     printf("Enter First Angle: ");
6     scanf("%d",&a);
7     printf("Enter Second Angle: ");
8     scanf("%d",&b);
9     c=180-a-b;           //Sum Of all angle of triangle is 180.
10    printf("The third angle is: %d",c);
11    return 0;
12 }


```

```

C:\Users\subha\Documents\c > + - X
Enter First Angle: 30
Enter Second Angle: 60
The third angle is: 90
-----
Process exited after 27.62 seconds with return value
0
Press any key to continue . . .

```



```

1.PerformAllArithmeticOperations.cpp 2.AreaOfTriangle.cpp
1 //Program To Find Area Of A Triangle When Height And Base Are Given
2 #include<stdio.h>
3 int main(){
4     float a,b,area;
5     printf("Enter Height Of Triangle: ");
6     scanf("%f",&a);
7     printf("Enter Base Of Triangle: ");
8     scanf("%f",&b);
9     area=0.5*a*b;
10    printf("The Area of triangle is: %f unit^2",area);
11    return 0;
12 }


```

```

C:\Users\subha\Documents\c > + - X
Enter Height Of Triangle: 7
Enter Base Of Triangle: 4
The Area of triangle is: 14.000000 unit^2
-----
Process exited after 5.575 seconds with return value
0
Press any key to continue . . .

```

PATTERNS

```

1 //Program To Print Square Star Pattern
2 #include<stdio.h>
3 int main(){
4     int n,i,j;
5     printf("Enter the no. of rows: ");           //Taking Limit Input
6     scanf("%d",&n);
7     for(i=1;i <=n; i++){                      //For Rows
8         for(j=1;j <=n; j++){                  //For Columns
9             printf("* ");
10        }
11        printf("\n");                         //For New Line
12    }
13    return 0;
14 }


```

```

C:\Users\subha\OneDrive\Desktop > + - X
Enter the no. of rows: 5
* * * *
* * * *
* * * *
* * * *
* * * *

-----
Process exited after 9.7 seconds with return value
0
Press any key to continue . . .

```

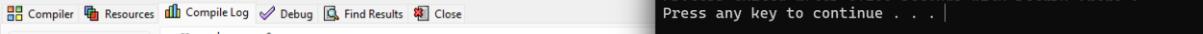
```
1 //Program To Print Hollow Square Star Pattern
2 #include<stdio.h>
3 int main(){
4     int n,i,j;
5     printf("Enter the no. of rows: ");      //Taking Limit Input
6     scanf("%d",&n);
7     for(i=1;i<=n;i++){                  //For Rows
8         for(j=1;j<=n;j++){            //For Columns
9             if(i==1 || i==n || j==1 || j==n){
10                 printf(" *");
11             }
12             else{
13                 printf("   ");
14             }
15         }
16         printf("\n");
17     }
18 }
```

```
C:\Users\subha\OneDrive\Desktop> Enter the no. of rows: 5
*****
*   *
*   *
*   *
*****  
-----  
Process exited after 29.32 seconds with return value  
0  
Press any key to continue . . . |
```



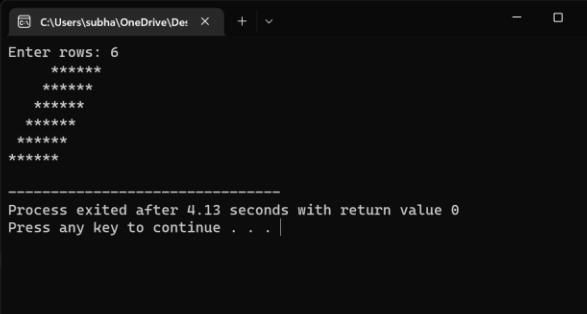
```
1 //Program To Print Hollow Diagonal Square Star Pattern
2 #include<stdio.h>
3 int main(){
4     int n,i,j;
5     printf("Enter the no. of rows: ");      //Taking Limit Input
6     scanf("%d",&n);
7     for(i=1;i<=n;i++){                  //For Rows
8         for(j=1;j<=n;j++){            //For Columns
9             if(i==1 || i==n || j==1 || j==n || i==j || j==n+i-1){
10                 printf(" *");
11             }
12             else{
13                 printf("   ");
14             }
15         }
16         printf("\n");
17     }
18 }
```

```
C:\Users\subha\OneDrive\Desktop> Enter the no. of rows: 9
*****  
**   **  
* *   *  
*   * *  
*   * *  
*   * *  
*   * *  
*****  
-----  
Process exited after 5.268 seconds with return value 0  
Press any key to continue . . . |
```



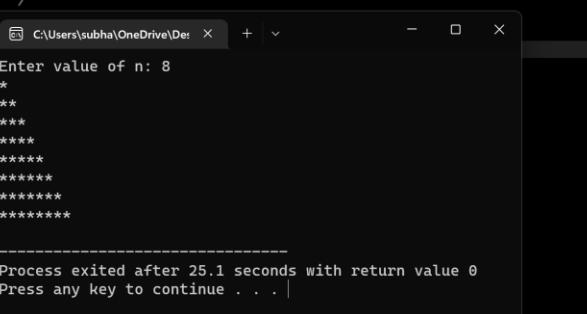
```
1 //Program To Print Rhombus Star Pattern
2 #include <stdio.h>
3 int main(){
4     int i, j, rows;
5     /* Input number of rows from user */
6     printf("Enter rows: ");
7     scanf("%d", &rows);
8     for(i=1; i<=rows; i++){
9         {
10             /* Print trailing spaces */
11             for(j=1; j<=rows - i; j++)
12             {
13                 printf(" ");
14             }
15             /* Print stars after spaces */
16             for(j=1; j<=rows; j++)
17             {
18                 printf("*");
19             }
20             /* Move to the next line */
21             printf("\n");
22         }
23     }
24     return 0;

```



```
Enter rows: 6
*****
*****
*****
*****
*****
-----
Process exited after 4.13 seconds with return value 0
Press any key to continue . . .
```

```
1 //Program To Print Right Triangle Star Pattern
2 #include <stdio.h>
3 int main(){
4     int i, j, n;
5     printf("Enter value of n: ");           // Input number of rows from user
6     scanf("%d", &n);
7     for(i=1; i<=n; i++){
8         for(j=1; j<=i; j++) {           /* Print i number of stars */
9             printf("*");
10        }
11        printf("\n");                /* Move to next line */
12    }
13    return 0;
14 }
```



```
Enter value of n: 8
*
**
***
****
*****
*****
*****
-----
Process exited after 25.1 seconds with return value 0
Press any key to continue . . .
```