

# 1. Basics

## 1. Write a program to add any two-given integer.

### Algorithm -

1. Start
2. Prompt user for two integer values
3. Accept the two values a & b
4. Calculate  $c = a + b$
5. Display c
6. Stop

### Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a, b, c;
    clrscr();
    printf("Enter two values \n");
    scanf("%d %d", &a, &b);
    c = a + b;
    printf("Ans = %d", c);
    getch();
}
```

## 2. Write a program to calculate the volume of a given sphere

### Formula -

Volume of sphere =  $\frac{4}{3} * \text{pie} * \text{radius} * \text{radius} * \text{radius}$

### Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    float r, vol;
    clrscr();
    printf("Enter the radius of the sphere\n");
    scanf("%f", &r);
    vol = 4.0/3 * 3.14 * r * r * r;
    printf("Ans = %f", vol);
    getch();
}
```

## 2. Control Structure

### If-Else

1. Write a program to find largest number amongst any two given no.

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    float a,b;
    clrscr();
    printf("Enter two values \n");
    scanf("%f %f", &a, &b);
    if(a>b)
        printf("Larger No = %f",a);
    else
        print("Larger No = %f",b);
    getch();
}
```

2. Write a program to find largest number among any 3 given number

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    float a, b, c, max;
    clrscr();
    printf("Enter three values \n");
    scanf("%f %f %f", &a, &b, &c);
    max = a;
    if(b > max)
        max=b;
    if(c > max)
        max=c;
    printf("Largest Value = %f", max);
    getch();
}
```

### 3. Write a program to find given number is odd or not

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a;
    clrscr();
    printf("Enter the values \n");
    scanf("%d", &a);
    if(a % 2 == 0)
        printf("Even");
    else
        printf("Odd");
    getch();
}
```

## For Loop

### 4. Write a program to display first hundred integer value.

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int i;
    clrscr();
    for(i = 0; i <= 100; i++)
        printf("%d\t", i);
    getch();
}
```

### 5. Write a program to add first 5 natural number.

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int i, sum=0;
    clrscr();
    for(i = 1; i <= 5; i++)
        sum = sum + i;
    printf("Answer = %d", sum);
    getch();
}
```

## 6. Write a program to find factorial of a given number.

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int i, n, fact=1;
    clrscr();
    printf("Enter the Number \n");
    scanf("%d", &n);
    for(i = n; i >= 1; i--)
        fact = fact * i;
    printf("Factorial = %d", fact);
    getch();
}
```

## 7. Write a program to generate first n Fibonacci number.

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int i, n, a, b, c;
    clrscr();
    printf("Enter no of values: \n");
    scanf("%d", &n);
    a=1;
    b=1;
    printf("%d\t%d\t", a, b);
    for(i = 1; i <= (n-2); i++ )
    {
        c = a + b;
        printf("%d\t", c);
        a=b;
        b=c;
    }
    getch();
}
```

## Nested For Loop

**8. Write a program to generate the following output**

```
*
* *
* * *
* * * *
, , , ,
* * * * * (n times)
```

**Code -**

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int i, j, n;
    clrscr();
    printf("Enter no of rows: \n");
    scanf("%d", &n);

    for( i=1; i <= n; i++ )
    {
        for( j = 1; j <= i; j++)
            printf("*");
        printf("\n");
    }
    getch();
}
```

**9. Write a program to generate the following output**

```
1
1 2
1 2 3
1 2 3 4
, , , ,
1 2 3 4 .. n
```

**Code -**

```
#include <stdio.h>
#include <conio.h>
```

```

void main()
{
int i, j, n;
clrscr();
printf("Enter no of rows: \n");
scanf("%d", &n);

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

```

### 10. Write a program to generate the following output

```

1
2 3
4 5 6
7 8 9 10

```

#### Code -

```

#include <stdio.h>
#include <conio.h>
void main()
{
int i, j, k=1;
clrscr();
for(i = 1; i <= 4; i++)
{
    for( j = 1; j <= i; j++)
        printf("%d", k++);
    printf("\n");
}
getch();
}

```

### 11. Calculate the output of program segment.

#### Code -

```

#include <stdio.h>
#include <conio.h>
void main()
{
int i, j;

```

```

clrscr();

for(i = 1; i <= 4; i++)
{
    for(j = 65; j < (65+i); j++)
        printf("%c", j);
    printf("\n");
}
getch();
}

```

**Output –**

```

A
A B
A B C
A B C D

```

**12. Write a program to generate the following output**

```

*
* *
* * *
* * * *
* * *
* *
*

```

**Code -**

```

#include <stdio.h>
#include <conio.h>
void main()
{
    int i, j;
    clrscr();

    for(i = 1; i <= 4; i++)
    {
        for(j=1; j <= i; j++)
            printf("*");
        printf("\n");
    }
    for(i = 1; i <= 3; i++)
    {
        for(j = 1; j <= (4-i); j++)

```

```

        printf("***");
        printf("\n");
    }
    getch();
}

```

### 13. Write a program to generate the following output

```

        *
      * *
    * * *
  * * * *
* * * * *
  * * *
    * *
      *

```

#### Code -

```

#include <stdio.h>
#include <conio.h>
void main()
{
    int i, j;
    clrscr();

    for(i = 1; i <= 4; i++)
    {
        for(j = 1; j <= (4-i); j++)
            printf(" ");
        for(j = 1; j <= i; j++)
            printf("***");
        printf("\n");
    }
    for(i = 1; i <= 3; i++)
    {
        for(j = 1; j <= i; j++ )
            printf(" ");
        for(j = 1; j <= (4-i); j++ )
            printf("***");
        printf("\n");
    }
    getch();
}

```



**14. Write a program to generate the following output**

```
      *
     *  *
    *  *  *
   *  *  *  *
  *  *  *
 *  *
 *
```

**Code -**

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int i, j;
    clrscr();

    for(i = 1; i <= 4; i++)
    {
        for(j = 1; j <= (4-i); j++)
            printf(" ");
        for(j = 1; j <= i; j++)
            printf("* ");
        printf("\n");
    }
    for(i = 1 ; i <= 3 ; i++)
    {
        for(j = 1; j <= i; j++)
            printf(" ");
        for(j = 1; j <= (4-i); j++)
            printf("* ");
        printf("\n");
    }
    getch();
}
```

**15. Write a program to generate the following output**

```
      1
     1 2 1
    1 2 3 2 1
   1 2 3 4 3 2 1
  1 2 3 4 5 4 3 2 1
```

### Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int i, j;
    clrscr();

    for(i = 1; i <= 5; i++)
    {
        for(j = 1; j <= (5-i); j++)
            printf(" ");
        for(j = 1; j <= i; j++)
            printf("%d", j);
        printf("\n");
        for (j = (i-1); j >= 1; j--)
            printf("%d", j);
        printf("\n");
        getch();
    }
}
```

## While Loop

**16. Write a program to calculate the sum of first five natural number using**

**1. While loop**

**2. Do while loop**

Code –

1. Using while loop

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int i=1, sum=0;
    clrscr();
    while(i <= 5)
    {
        sum = sum + i;
        i++;
    }
    printf("Ans= %d", sum);
    getch();
}
```

2. Using do while loop

```
#include <stdio.h>
#include <conio.h>
```

```

void main()
{
int i=1, sum=0;
clrscr();
do
{
    sum = sum + i;
    i++;
} while(i <= 5);
printf("Ans= %d", sum);
getch();
}

```

**17. Write a program to calculate the sum and product of the digits of the given integer number**

Code -

```

#include <stdio.h>
#include <conio.h>
void main()
{
int n, d, sum=0, prod=1;
clrscr();
printf("Enter your number: \n");
scanf("%d", &n);
while(n != 0)
{
    d = n % 10;
    sum = sum + d;
    prod = prod * d;
    n = n/10;
}
printf("Sum= %d", sum);
printf("Product= %d", prod);
getch();
}

```

**18. Write a program to reverse a given integer no.**

Code -

```

#include <stdio.h>
#include <conio.h>
void main()
{
int n, d, rev=0;
clrscr();
printf("Enter the number: \n");
scanf("%d", &n);

```

```

while(n != 0)
{
    d = n % 10;
    rev = rev * 10 + d;
    n = n/10;
}
printf("Reverse = %d", rev);
getch();
}

```

### 19. To check whether the given no is an Armstrong no.

Code -

```

#include <stdio.h>
#include <conio.h>
void main()
{
    int d, n, sum=0, t;
    clrscr();
    printf("Enter the value: \n");
    scanf("%d", &n);
    t = n;
    while(n != 0)
    {
        d = n % 10;
        sum = sum + d * d * d;
        n = n/10;
    }
    if (sum == t)
        printf("Armstrong");
    else
        printf("Not an Armstrong");
    getch();
}

```

### 20. Write a program to check whether the given number is prime number

Code -

```

#include <stdio.h>
#include <conio.h>
void main()
{
    int x, i=1;
    clrscr();
    printf("Enter the Number: \n");
    scanf("%d", &x);
    do{
        i++;

```

```

    }while(x % i != 0);
    if(x == i)
        printf("Prime Number");
    else
        printf("Not A Prime Number");
    getch();
}

```

## 21. Write a program to generate first n prime number

Code -

```

#include <stdio.h>
#include <conio.h>
void main()
{
    int i, n, x=2, c=1;
    clrscr();
    printf("Enter the Number: \n");
    scanf("%d", &n);
    do
    {
        i=1;
        do
        {
            i++;
        } while(x % i != 0);
        if(x == i)
        {
            c++;
            printf("%d\t", x);
        }
        x++;
    } while(c <= n);
    getch();
}

```

## 22. Demonstration of break Statement

Code -

```

#include <stdio.h>
#include <conio.h>
void main()
{
    int i;
    clrscr();
    for (i = 1; i <=5; i++)
    {
        If(i % 3 == 0)

```

```

                break;
            else
                printf("%d", i);
        }
        printf("Loop Ends");
        getch();
    }

```

**Output -**

1 2 Loop Ends

### 23. Demonstration of continue Statement

**Code -**

```

#include <stdio.h>
#include <conio.h>
void main()
{
    int i;
    clrscr();
    for (i = 1; i <=5; i++)
    {
        if(i % 2 == 0)
            continue;
        else
            printf("%d", i);
    }
    printf("Loop Ends");
    getch();
}

```

**Output -**

1 3 5 Loop Ends

## Switch

**24. Write a menu driven program to perform the following operation:**

- 1. Addition**
- 2. Subtraction**
- 3. Multiplication**
- 4. Division**

**Code -**

```

#include <stdio.h>
#include <conio.h>
void main()
{

```

```
float a, b, c;
int option;
clrscr();
printf("MENU\n");
printf("1. Addition \n");
printf("2. Subtraction\n");
printf("3. Multiplication\n");
printf("4. Division\n");
printf("Enter the Option: \n");
scanf(" %d ", &option);
printf("Enter the Two Values: \n");
scanf("%f %f", &a, &b);
switch(option)
{
    case 1: c = a + b;
           break;
    case 2: c = a - b;
           break;
    case 3: c = a * b;
           break;
    case 4: c = a / b;
           break;
    default: printf("Invalid Input");
}
getch();
}
```

# 3. Functions

## 1. Write a program to add any two given integer using function

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a, b, c;
    int sum(int x, int y);
    clrscr();
    printf("Enter two values:\n");
    scanf("%d %d", &a, &b);
    c = sum (a, b);
    printf("Ans = %d", c);
    getch();
}

int sum (int x, int y)
{
    int z;
    z = x + y;
    return (z);
}
```

## 2. Write a program to calculate the average of any three given number using function

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a, b, c, d;
    int avg(int, int, int);
    clrscr();
    printf("Enter the no:\n");
    scanf("%d %d %d", &a, &b, &c);
    d = avg(a, b, c);
    printf("Average = %d", d);
    getch();
}

int avg(int x, int y, int z)
{
    int m;
```



```
m = (x + y + z) / 3;
return (m);
}
```

### 3. Write a program to calculate factorial of a number using function

Code –

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a, n;
    int fact(int);
    clrscr();
    printf("Enter the no:\n");
    scanf("%d", &n);
    a = fact(n);
    printf("Factorial = %d", a);
    getch();
}

int fact(int n)
{
    int i, x = 1;
    for(i = 1; i <= n; i++)
        x = x * i;
    return (x);
}
```

### 4. Write a program to calculate ${}^n C_r$ using a function to calculate the factorial

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a, b, c, n, r, ans;
    int fact(int);
    clrscr();
    printf("Enter the values:\n");
    scanf("%d %d", &n, &r);
    a = fact(n);
    b = fact(r);
    c = fact(n - r);
    ans = a / (b * c);
    printf("Answer = %d", ans);
    getch();
}
```

```
int fact(int x)
{
    int i, f = 1;
    for(i = x; i >= 1; i--)
        f = f * i;
    return (x);
}
```

**5. Write a program to check whether a given number is an Armstrong number. (use void function)**

Code –

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int n;
    void armstrong(int);
    clrscr();
    printf("Enter the Value:\n");
    scanf("%d", &n);
    armstrong(n);
    getch();
}

void armstrong(int n)
{
    int d, t, sum = 0;
    t = n;
    while(n != 0)
    {
        d = n % 10;
        sum = sum + d * d * d;
        n = n / 10;
    }
    if(sum == t)
        print("The number is Armstrong");
    else
        printf("The number is not Armstrong");
}
```

## 6. Write a program to calculate GCD & LCM of any two number

Code –

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a, b;
    void gcdlcm(int, int);
    clrscr();
    printf("Enter Two Value:\n");
    scanf("%d %d", &a, &b);
    gcdlcm(a, b);
    getch();
}

void gcdlcm(int a, int b)
{
    int gcd, lcm, prod, c = 100;
    prod = a * b;
    while(c != 0)
    {
        c = a % b;
        if(c == 0)
        {
            gcd = b;
            printf("GCD = %d", gcd);
            break;
        }
        a = b;
        b = c;
    }
    lcm = prod / gcd;
    printf("LCM = %d\n", lcm);
}
```

# 4. Recursion

## 1. Write a program to calculate factorial of a given number using recursion

Code –

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int n, ans;
    int fact(int);
    clrscr();
    printf("Enter value:\n");
    scanf("%d", &n);
    ans = fact(n);
    printf("Answer = %d", ans);
    getch();
}

int fact()
{
    int t;
    if(x == 1)
        return (1);
    else
        f = x * fact(x - 1);
    return (f);
}
```

## 2. Write a program to calculate GCD using recursion

Code –

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a, b, ans;
    int gcd(int, int);
    clrscr();
    printf("Enter Values:\n");
    scanf("%d", &n);
    ans = gcd(a, b);
    printf("GCD = %d", ans);
    getch();
}
```

```

}

int gcd(int a, int b)
{
int c;
if(a % b == 0)
    return (b);
else
    c = gcd(b, a%b);
return (c);
}

```

### 3. Write a program to generate n<sup>th</sup> Fibonacci Number

Code –

```

#include <stdio.h>
#include <conio.h>
void main()
{
int n, ans;
int fibo(int);
clrscr();
printf("Enter Values:\n");
ans = fibo(n);
printf("Answer = %d", ans);
getch();
}

int fibo(int n)
{
int x, y;
if(n <= 1)
    return (n);
x = fibo(n - 1);
y = fibo(n - 2);
return (x + y);
}

```

### 4. Write a program to generate Fibonacci series using recursion

Code –

```

#include <stdio.h>
#include <conio.h>
int fibo(int);
void main()

```

```
{
int n, ans, i;
clrscr();
printf("Enter Values:\n");
scanf("%d", &n);
for(i = 1; i <= n; i++)
{
    ans = fibo(i);
    printf("%d", ans);
}
getch();
}
```

```
int fibo(int n)
{
int x, y;
if(n <= 1)
    return (n);
x = fibo(n - 1);
y = fibo(n - 2);
return (x + y);
}
```

# 5. 1-D Arrays

## 1. Write a program to enter 4 digit in array and display them

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a[4], i;
    clrscr();
    for(i = 0; i < 4; i++)
    {
        printf("Enter Value\n");
        scanf("%d", &a[i]);
    }
    for(i = 0; i < 4; i++)
        printf("%d\t", &a[i]);
    getch();
}
```

## 2. Write a program to sum 'n' integers using array

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a[100], i, n, sum = 0;
    clrscr();
    printf("Enter No of Values:\n");
    scanf("%d", &n);
    for(i = 0; i < n; i++)
    {
        printf("Enter Value\n");
        scanf("%d", &a[i]);
    }
    for(i = 0; i < n; i++)
        sum = sum + a[i];
    printf("Sum = %d", sum);
    getch();
}
```

### 3. Write a program to count the no of even and odd number in a given list of 'n' number. Use function Implementation.

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a[100], i, n;
    void compute(int a[],int);
    clrscr();
    printf("Enter No of Values:\n");
    scanf("%d", &n);
    for(i = 0; i < n; i++)
    {
        printf("Enter Value\n");
        scanf("%d", &a[i]);
    }
    compute(a, n);
    getch();
}

void compute(int a[], int n)
{
    int i, even = 0, odd = 0;
    for(i = 0; i < n; i++)
        if(a[i] % 2 == 0)
            even++;
        else
            odd++;
    printf("Even Number = %d\n", even);
    printf("Odd Number = %d\n", odd);
}
```

### 4. Write a program to find the largest value in a given list of number

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a[100], i, n;
    void compute(int a[],int);
    clrscr();
    printf("Enter No of Values:\n");
```



```

scanf("%d", &n);
for(i = 0; i < n; i++)
{
    printf("Enter Value\n");
    scanf("%d", &a[i]);
}
compute(a, n);
getch();
}

void compute(int a[], int n)
{
    int i, max;
    max = a[0];
    for(i = 1; i < n; i++)
        if(a[i] > max)
            max = a[i];
    printf("Largest Number = %d\n", max);
}

```

## 5. Write a program to reverse an array

Code –

```

i. Using an extra array
#include <stdio.h>
#include <conio.h>
void main()
{
    int a[100], i, n;
    void compute(int a[],int);
    clrscr();
    printf("Enter No of Values:\n");
    scanf("%d", &n);
    for(i = 0; i < n; i++)
    {
        printf("Enter Value\n");
        scanf("%d", &a[i]);
    }
    compute(a, n);
    getch();
}

```

```

void compute(int a[], int n)
{
    int b[100], i, j;
    for(i = (n - 1), j = 0; i >= 0; i--, j++)
        b[j] = a[i];
    for(i = 0; i < n; i++)
        printf("%d\t", b[i]);
}

```

ii. Without using an extra array

```

#include <stdio.h>
#include <conio.h>
void main()
{
    int a[100], i, n;
    void compute(int a[],int);
    clrscr();
    printf("Enter No of Values:\n");
    scanf("%d", &n);
    for(i = 0; i < n; i++)
    {
        printf("Enter Value\n");
        scanf("%d", &a[i]);
    }
    compute(a, n);
    getch();
}

```

```

void compute(int a[], int n)
{
    int i, temp;
    for(i = 0; i < n/2; i++)
    {
        temp = a[i];
        a[i] = a[n - (i + 1)];
        a[n - (i + 1)] = temp;
    }
    for(i = 0; i < n; i++)
        printf("%d\t", b[i]);
}

```

## 6. Write a program to calculate the following expression

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a[100], i, n;
    void compute(int a[],int);
    clrscr();
    printf("Enter No of Values:\n");
    scanf("%d", &n);
    for(i = 0; i < n; i++)
    {
        printf("Enter Value\n");
        scanf("%d", &a[i]);
    }
    compute(a, n);
    getch();
}

void compute(int a[], int n)
{
    int i, sum1 = 0, sum2 = 0, ans;
    for(i = 0; i < n; i++)
    {
        sum1 = sum1 + a[i];
        sum2 = sum2 + a[i] * a[i];
    }
    ans = sum2 + sum1 * sum1;
    printf("Answer = %d", ans);
}
```

## 7. Write a program to display mean and standard deviation

Code -

```
#include <stdio.h>
#include <conio.h>
#include <math.h>
void main()
{
    int a[100], i, n;
    void compute(int a[],int);
    clrscr();
    printf("Enter No of Values:\n");
```

```
scanf("%d", &n);
for(i = 0; i < n; i++)
{
    printf("Enter Value\n");
    scanf("%d", &a[i]);
}
compute(a, n);
getch();
}
```

```
void compute(int a[], int n)
{
    int i;
    float avg, s, sum = 0, sum1 = 0;
    for(i = 0; i < n; i++)
        sum = sum + a[i];
    avg = sum / n;
    for(i = 0; i < n; i++)
        sum1 = sum1 + (a[i] - avg) * (a[i] - avg);
    s = sqrt(sum1 * (n - 1));
    printf("Mean = %f\n", avg);
    printf("Standard Deviation = %f", s);
}
```

## 8. Write a program to sort a given set of 'n' number in ascending order

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a[100], i, n;
    void compute(int a[],int);
    clrscr();
    printf("Enter No of Values:\n");
    scanf("%d", &n);
    for(i = 0; i < n; i++)
    {
        printf("Enter Value\n");
        scanf("%d", &a[i]);
    }
    compute(a, n);
    getch();
}

void compute(int a[], int n)
{
    int i, j, temp;
    for(i = 0; i < (n - 1); i++)
        for(j = 0; j < (n-1); j++)
            if(a[j] > a[j + 1])
            {
                temp = a[j];
                a[j] = a[j + 1];
                a[j + 1] = temp;
            }
    printf("The sorted array is\n");
    for(i = 0; i < n; i++)
        printf("%d\t", a[i]);
}
```

## 9. Write a program to search a given value in a list of 'n' value

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a[100], i, n;
    void compute(int a[],int);
    clrscr();
    printf("Enter No of Values:\n");
    scanf("%d", &n);
    for(i = 0; i < n; i++)
    {
        printf("Enter Value\n");
        scanf("%d", &a[i]);
    }
    compute(a, n);
    getch();
}

void compute(int a[], int n)
{
    int i, x, index, found = 0;
    printf("Enter the value to be searched:\n");
    scanf("%d", &x);
    for(i = 0; i < n && found == 0; i++)
        if(a[i] == x)
        {
            index = i;
            found = 1;
            break;
        }
    if(found == 1)
        printf("Value found at index %d", index);
    else
        printf("Value not found");
}
```

## 10. Write a program to delete a given value from a given list of 'n' number

Code -

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a[100], i, n;
    void compute(int a[],int);
    clrscr();
    printf("Enter No of Values:\n");
    scanf("%d", &n);
    for(i = 0; i < n; i++)
    {
        printf("Enter Value\n");
        scanf("%d", &a[i]);
    }
    compute(a, n);
    getch();
}

void compute(int a[], int n)
{
    int i, x, index, found = 0;
    printf("Enter the value to be searched:\n");
    scanf("%d", &x);
    for(i = 0; i < n && found == 0; i++)
        if(a[i] == x)
        {
            index = i;
            found = 1;
            break;
        }
    if(found == 1)
    {
        for(i = index; i < (n - 1); i++)
            a[i] = a[i+1];
        printf("Data after deletion is \n");
        for(i = 0; i < (n - 1); i++)
            printf("%d\t", a[i]);
    }
    else
        printf("Value not found");
}
```