INPUT AND OUT PUT IN AN ARRAY

```c
// Input and OutPut in an Array.

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

    int arr[5];
    printf("Enter 5 value ::");
    scanf("%d",&arr[0]);
    scanf("%d",&arr[1]);
    scanf("%d",&arr[2]);
    scanf("%d",&arr[3]);
    scanf("%d",&arr[4]);

    printf("Values in array are :: \n ");
    printf("%d\n",arr[0]);
    printf("%d\n",arr[1]);
    printf("%d\n",arr[2]);
    printf("%d\n",arr[3]);
    printf("%d\n",arr[4]);

}
```

-Process of input and output with Array is similar to input and output with simple variables.

- but without loops this process becomes vary time consuming.

By Using Loops Process of input and output in an array becomes faster and easier.

- Loops also reduce the code.

-So Loops are frequently used to input and output data in an array.

->Write a Program that input 5 values in an array and display them using Loops.

```c
#include<stdio.h>
int main()
{
    int arr[5];
    int i;
    for (i=0;i<=4;i++)   //this loop is for input in array
    {
        printf("Enter value::");
        scanf("%d",&arr[i]);
    }
    printf("values in and Array are ::\n ");

    for (i=0;i<=4;i++)   //this loop is for output from array
        printf("%d\n",arr[i]i;

    return 0;
}
```

```c
//write a program that input five numbers in an array
// and display their sum and average

#include<stdio.h>
int main()
{
    int marks[5];
    int i;
    int sum=0;
    float avg;

    for (i=0;i<=4;i++)  //this loop is for input in array marks of 5 elements
    {
        printf("Enter value::");
        scanf("%d",&marks[i]);
        sum=sum+marks[i];
    }
    avg=sum/5.0;
    printf("Sum of values is :: %d\n",sum);
    printf("average of five values is :: %f",avg);

    return 0;
}
```

```c
//this program takes 5 ineger values from user and
// display the maximum number.

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

    int arr[5];
    int i,max;

    for(i=0;i<=4;i++)
    {
        printf("Enter value ::");
        scanf("%d",&arr[i]);
    }

    max=arr[0];
    for(i=1;i<=4;i++)
    {
        if(arr[i]>max)
        max=arr[i];
    }
    printf("Maximum value in array is :: %d ",max);
}
```

```c
//this program takes 5 ineger values from user and
// display the minimum number.

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

    int arr[5];
    int i,min;

    for(i=0;i<=4;i++)
    {
        printf("Enter value ::");
        scanf("%d",&arr[i]);
    }

    min=arr[0];
    for(i=1;i<=4;i++)
    {
        if(arr[i] < min)
        min=arr[i];
    }
    printf("Minimum value in array is :: %d ",min);
}



-------------------------------------------------------------------------------
//this program takes 10 ineger values from user and
// display the maximum number and minimum.
 #include<stdio.h>
int main()
{
    int arr[10];
    int i,max,min;

    for(i=0;i<10;i++)    //loop used to input 10 values in an array
    {
        printf("Enter value ::");
        scanf("%d",&arr[i]);
    }
    min=max=arr[0];
    for(i=1;i<10;i++)
    {
        if(arr[i]>max)
        max=arr[i];
        if (arr[i]<min)
        min=arr[i];
    }
    printf("Maximum value in array is :: %d\n ",max);
    printf("Minimum value in array is :: %d ",min);
}


-------------------------------------------------------------------------------
```

```c
//write a program that input five numbers in an array
// and display total odd values and total even values in an array
#include<stdio.h>
int main()
{
    int marks[5];
    int i;
    int ec=0,oc=0;


    for (i=0;i<=4;i++)
    {
        printf("Enter value::");
        scanf("%d",&marks[i]);
        if(marks[i]%2==0)
            ec++;
        else
            oc++;
    }

    printf("Total Even Values in Array are :: %d\n",ec);
    printf("Total odd Values in Array are :: %d\n",oc);

    return 0;
}
```

```c
//how many time number appear in arry
#include<stdio.h>
#include<conio.h>
int main()
{
    int a[10],n,i;
    int num,c=0;

    for(i=0;i<10;i++)
    {
        printf("Enter value::");
        scanf(" %d",&a[i]);
    }
    printf("Enter number of to find reapation::");
    scanf("%d",&num);

    for(i=0;i<10;i++)
    {
        if(a[i]==num)
        c++;
    }
    printf("The number %d is repeated %d times",num,c);
}
```

```c
// Write a Program that input 10 numbers from the user in an Array
//  Program find out how many of them are prime.

#include<stdio.h>

int main()
{
    int arr[10],c,p,i;
    int count=0;

    for(i=0;i<10;i++)
    {
        printf("Enter value::");
        scanf(" %d",&arr[i]);
    }

    for(i=0;i<10;i++)
    {
        p=1;
        for(c=2;c<=arr[i]/2;c++)
            if(arr[i]%c==0)
            {
                p=0;
                break;
            }
            if(p==1)
            count++;
    }
    printf("Total number of Prime in an array are %d ",count);
}
```