



Experiment: 1

Aim: Accept 5 numbers in an array and display it.

Software: Dev C++

Code:

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

int main()
{
    int a[5];

    for (int i = 0; i < 5; i++)
    {
        scanf("%d", &a[i]);
    }

    for (int i = 0; i < 5; i++)
    {
        printf("%d", a[i]);
    }

    return 0;
}
```

Output:

```
D:\Aryan\Sem-1\ICP\Assignment\Programming Assignment\Programming Assignment
Enter The Number at Index-0:-0
Enter The Number at Index-1:-1
Enter The Number at Index-2:-2
Enter The Number at Index-3:-3
Enter The Number at Index-4:-4
0
1
2
3
4
-----
Process exited after 7.899 seconds with return value 0
Press any key to continue . . .
```

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Experiment: 2

Aim: Accept 4 numbers in 2-d array.

Software: Dev C++

Code:

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

int main()
{
    int a[2][2];

    for(int i=0; i<2; i++)
    {
        for(int j=0; j<2; j++)
        {
            printf("Enter A Number:-");
            scanf("%d", &a[i][j]);
        }
    }

    for(int i=0; i<2; i++)
    {
        for(int j=0; j<2; j++)
        {
            printf("red" a[i][j]);
        }
    }

    return 0;
}
```

Output:

```
D:\Aryan\Sem-1\ICP\Assignment\Programming Assignment\Programming A
Enter The Numbers at a[0][0]:-0
Enter The Numbers at a[0][1]:-1
Enter The Numbers at a[1][0]:-2
Enter The Numbers at a[1][1]:-3
0 1
2 3

-----
Process exited after 2.929 seconds with return value 0
Press any key to continue . . .
```

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Experiment: 3

Aim: Write a program to add two matrices.

Software: Dev C++

Code:-

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

int main()
{
    int a[3][3], b[3][3];

    printf("Enter the value for Matrix-A:-\n");

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

    printf("Enter the value for Matrix-B:-\n");

    for(int i=0; i<3; i++)
    {
        for(int j=0; j<3; j++)
        {
            printf("a[%d][%d]= ", i, j);
            scanf("%d", &b[i][j]);
        }
    }
```

```
        printf("The Addition of A+B:-\n");

        for(int i=0; i<3; i++)
        {
            for(int j=0; j<3; j++)
            {
                printf("%d ", a[i][j] + b[i][j]);
                printf("\n");
            }
            return 0;
        }
```



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Output:

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```
Enter The Value For Matrix-A:-
a[0][0]:-0
a[0][1]:-1
a[0][2]:-2
a[1][0]:-3
a[1][1]:-4
a[1][2]:-5
a[2][0]:-6
a[2][1]:-7
a[2][2]:-8
Enter The Value For Matrix-B:-
b[0][0]:-0
b[0][1]:-1
b[0][2]:-2
b[1][0]:-3
b[1][1]:-4
b[1][2]:-
5
b[2][0]:-6
b[2][1]:-7
b[2][2]:-8
The Addition of Matrix A & B =
0 2 4
6 8 10
12 14 16

-----
Process exited after 22.94 seconds with return value 0
Press any key to continue . . .
```

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Experiment: 4

Aim: Write a program to find out all the even and odd numbers present in an array.

Software: Dev C++

Code:-

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

int main()
{
    int a[5], odd[5], even[5], oddn=0, evenn=0;

    for(int i=0; i<5; i++)
    {
        printf("Enter the value at a[%d]:", i);
        scanf("%d", &a[i]);

        if(a[i]%2 == 0)
        {
            even[evenn] = a[i];
            evenn++;
        }
        else
        {
            odd[oddn] = a[i];
            oddn++;
        }
    }

    printf("Even Numbers in Array are:");

    for(int i=0; i<evenn; i++)
    {
        printf("%d ", even[i]);
    }
}
```

```
printf("\n");

printf("Enter odd Numbers in Array:");

for(int i=0; i<oddn; i++)
{
    printf("%d ", odd[i]);
}

return 0;
}
```

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Output:-

```
D:\Aryan\Sem-1\ICP\Assignment\Programming Assignment\Programming As:
Enter The Value at a[0]:-0
Enter The Value at a[1]:-1
Enter The Value at a[2]:-2
Enter The Value at a[3]:-3
Enter The Value at a[4]:-4
Even Numbers In Array Are
0 2 4
Odd Numbers In Array Are
1 3
-----
Process exited after 4.271 seconds with return value 0
Press any key to continue . . .
```

Experiment: 5

Aim:- Accept 5 numbers in an array and find maximum and minimum value.

Software:- Dev C++

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Code:-

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

int main()
{
    int arr[5], max=0, min=0;

    for (int i=0; i<5; i++)
    {
        scanf("%d", &arr[i]);

        max=arr[i];

        for (int j=i+1; j<5; j++)
        {
            if (arr[j]>max)
            {
                max=arr[j];
            }
        }

        printf("The Maximum Number is %d", max);

        min=arr[i];

        for (int j=i+1; j<5; j++)
        {
            if (arr[j]<min)
            {
                min=arr[j];
            }
        }
    }
}
```

```
printf("The Minimum Number In Array Is  
%d", min);

return 0;
}
```

Output:-

```
D:\Aryan\Sem-1\ICP\Assigment\Programming Assigment\Programming Assi
Enter The Number at a[0]:-0
Enter The Number at a[1]:-1
Enter The Number at a[2]:-2
Enter The Number at a[3]:-3
Enter The Number at a[4]:-4
The Maximum Number In an Array Is 4
The Minimum Number In an Array Is 0
-----
Process exited after 5.206 seconds with return value 0
Press any key to continue . . .
```



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Experiment: 6

Aim:- Write a program to delete a word from a string.

Software:- Dev C++

Code:-

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

int main()
{
    char string[50], temp;

    gets(string);
    scanf("%s", &temp);

    for (int i = 0; i < 15; i++)
    {
        if (string[i] == temp)
        {
            continue;
        }
        else if (string[i] == '\0')
        {
            break;
        }
        else
        {
            printf("%s", string[i]);
        }
    }

    return 0;
}
```

Output:-

```
D:\Aryan\Sem-1\ICP\Assigment\Programming Assigment\Programn
Enter A String:-Aryan
Enter The Word that You want To Delete:-y
Aran
-----
Process exited after 7 seconds with return value 0
Press any key to continue . . .
```

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Experiment: 7

Aim:- Write a program to find the longest word in a string

Software:- Dev C++

Code:-

Output:-

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Experiment: 8

Aim:- Get two strings from user and merge it into first string.

Software:- Dev C++

Code:-

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

   int main()
   {
       char s1[15], s2[15];
       gets(s1);
       gets(s2);
       strcat(s1, s2);
       printf("Concate Is \"%s\"", s1);
       return 0;
   }
```

Output:-

```
D:\Aryan\Sem-1\ICP\Assigment\Programming Assigment\Programming As
Enter String-1:-Aryan
Enter String-2:-Langhanoja
Concate Is AryanLanghanoja
-----
Process exited after 10.27 seconds with return value 0
Press any key to continue . . .
```

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Experiment: 9

Aim:- Write a program to multiply two matrices

Software:- Dev C++

Code:-

```
3) #include<stdio.h>
#include<conio.h>
#define P 10
int main()
{
    int a[P][P], b[P][P], c[P][P], m, n, p, q;
    scanf("%d %d %d %d", &m, &n, &p, &q);
    if (m == p)
    {
        for (int i = 0; i < m; i++)
        {
            for (int j = 0; j < n; j++)
            {
                scanf("%d", &c[i][j]);
            }
        }
    }
}
```

```
for (int i = 0; i < p; i++)
{
    for (int j = 0; j < q; j++)
    {
        scanf("%d", &b[i][j]);
    }
}

for (int i = 0; i < m; i++)
{
    for (int j = 0; j < q; j++)
    {
        c[i][j] = 0;
        for (int k = 0; k < n; k++)
        {
            c[i][j] = c[i][j] + a[i][k] * b[k][j];
        }
    }
}

for (int i = 0; i < m; i++)
{
    for (int j = 0; j < q; j++)
    {
        printf("%d", c[i][j]);
    }
}

else
{
    printf("Multiplication is not possible");
}

return 0;
}
```

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Output:-

```
D:\Aryan\Sem-1\CP\Assigment\Programming Assigment\Programming Assigment
Enter The Number of Rows of Matrix-A:-2
Enter The Number of Columns of Matrix-A:-2
Enter The Number of Rows of Matrix-B:-2
Enter The Number of Columns of Matrix-A:-2
Enter The Number at a[0][0]:-0
Enter The Number at a[0][1]:-1
Enter The Number at a[1][0]:-2
Enter The Number at a[1][1]:-3

Enter The Number at b[0][0]:-0
Enter The Number at b[0][1]:-1
Enter The Number at b[1][0]:-2
Enter The Number at b[1][1]:-3
Multiplication Of Matrix is
2 3
6 11

-----
Process exited after 16.28 seconds with return value 0
Press any key to continue . . .
```

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Experiment: 10

Aim:- Write a program to add all the elements of a matrix

Software:- Dev C++

Code:-

```
1a) #include <stdio.h>
#include <conio.h>

int main()
{
    int a[3][3], sum = 0;

    for (int i = 0; i < 3; i++)
    {
        for (int j = 0; j < 3; j++)
        {
            scanf("%d", &a[i][j]);
            sum = sum + a[i][j];
        }
    }

    printf("Sum = %d", sum);
}
```

Output:-

```
D:\Aryan\Sem-1\ICP\Assignment\Programming Assignment\Programming Assignme
Enter The Element Of Matrix:-
a[0][0]:-0
a[0][1]:-1
a[0][2]:-2
a[1][0]:-3
a[1][1]:-4
a[1][2]:-5
a[2][0]:-6
a[2][1]:-7
a[2][2]:-8
The Addition Of all Elements In the Matrix Is 36
-----
Process exited after 6.546 seconds with return value 0
Press any key to continue . . .
```

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