

Multi Dimensional Array(2-D Array)

Programs

1. Write a program in ‘C’ to print 2-D Array.

```
#include<stdio.h>
#include<conio.h>
void main()
{
    int i=0,j=0;
    int A[4][3];
    clrscr();
    printf("enter 2-D array elements");
    for(i=0;i<4;i++)
    {
        for(j=0;j<3;j++)
        {
            scanf("%d",&A[i][j]);
        }
    }
    printf("Array elements are");
    for(i=0;i<4;i++)
    {
        for(j=0;j<3;j++)
        {
            printf("arr[%d] [%d] = %d \n",i,j,A[i][j]);
        }
    }
    getch();
}
```

2. C Program to read a matrix and find sum, product of all elements of two dimensional (matrix) array

Solution

```
#include <stdio.h>

#include<conio.h>

void main()
{
    int matrix[10][10];

    int i,j,r,c;

    int sum,product;

    printf("Enter number of Rows :");

    scanf("%d",&r);

    printf("Enter number of Cols :");

    scanf("%d",&c);

    printf("\nEnter matrix elements :\n");

    for(i=0;i< r;i++)
    {
        for(j=0;j< c;j++)

```

```
{  
    scanf("%d",&matrix[i][j]);  
}  
  
}  
  
sum = 0;  
product = 1;  
  
for(i=0;i<r;i++)  
{  
    for(j=0;j<c;j++)  
    {  
        Sum = sum + matrix[i][j];  
        Product = product * matrix[i][j];  
    }  
}  
  
printf("\nSUM of all elements : %d \nProduct of all elements :%d",sum,product);  
getch();  
}
```

Programs for practice.

1. Write a program in ‘C’ for addition of matrix.
2. Write a program in ‘C’ for subtraction of matrix.
3. Write a program in ‘C’ for multiplication of matrix.
4. Write a program in ‘C’ for transpose of matrix.