1. One Dimension Array

```
#include <stdio.h>
#define SIZE 10
// Defining a Constant. Occurrence of SIZE will be replaced by 10 before the compilation

int main()
{
   int a[SIZE];
   int n,i,s,m;
   printf("Enter the no of elements->");
   scanf("%d",&n);
   if(n > SIZE)
   {
      printf("\nError : No of elements exceeded the Total Memory locations
defined...\n");
      return 0;
   }
   else
   {
      for(i =0;i < n;i++)   //reading the elements to the array
      {
         printf("Enter a[%d]->",i);
         scanf("%d",&a[i]);
      }
      for(i = 0;i < n;i++)    //displaying the elements with Memory address and value
      {
         printf("Address of a[%d] is %d and the Value is -> %d\n",i,&a[i],a[i]);
      }
      s = 0;
      for(i =0;i < n;i++)     //finding the sum of array elements
      {
         s = s + a[i];
      }
      printf("Sum of the elements in the array is -> %d",s);
      m = a[0];
      for(i =1;i < n;i++)  //see here i is starting from 1 as m is initialized with a[0]
      {
         if(m <a[i])      //finding the maximum element in an array
         {
            m = a[i];
         }
```

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    }
    printf("\nMaximum element in an array is -> %d",m);
  }
  return 0;
}
```

Two Dimensional Array

```
#include <stdio.h>
#define SIZE 3
int main()
{
  int a[SIZE][SIZE];
  int r,c,i,j;
  printf("Enter the no of rows and columns ->");
  scanf("%d%d",&r,&c);
  if(r > SIZE || c > SIZE)
  {
    printf("Error : Array size exceeeded\n");
    return 0;
  }
  else
  {
    for(i = 0;i < r;i++)
    {
      for(j = 0;j < c;j++)
      {
        printf("Enter a[%d][%d]->",i,j);
        scanf("%d",&a[i][j]);
      }
    }
    for(i = 0;i < r;i ++)
    {
      for(j = 0;j < c;j++)
      {
        printf("%d\t",a[i][j]);
      }
      printf("\n");
    }
  }
   return 0;
}
```