

Practical 6

**1. Declare a single dimensional array with 10 elements
Input the values to the array and find the following**

- I. Minimum value**
- II. Maximum value**
- III. Average value**
- IV. Reverse order of values**

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

```
#include <stdlib.h>
```

```
int main()
```

```
{
```

```
    //1
```

```
    int elements[10],i,max,min,sum=0;
```

```
    float avg;
```

```
    for (i=0;i<10;i++)
```

```
    {
```

```
        printf("Enter a value to the elements %d ",i+1);
```

```
        scanf("%d",&elements[i]);
```

```
        sum=sum+elements[i];
```

```
        if(elements[i]>max)
```

```
            max=elements[i];
```

```
    min=elements[0];
    {
        if(elements[i]>max)
            max=elements[i];
    }
    if(elements[i]<min)
    {
        min=elements[i];
    }
}
{
    avg=(float)sum/10.0;
    printf("The avarage is %.2f \n",avg);
    printf("The maximum is %d \n",max);
    printf("The minimum is %d \n",min);
}
for (i=9;i>=0;i--)
{
    printf("Reverse oder of values is %d \n",elements[i]);
}
return 0;
}
```

2. Declare to single dimensional array with the size given by the user and find, display the followings

- **Scalar sum**

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

int main()
{
    int arr1[2],arr2[2],i,sum[2];
    for(i=0;i<2;i++){
        printf("Input 1st values ");
        scanf("%d",&arr1[i]);
        printf("Input 2nd values ");
        scanf("%d",&arr2[i]);
        sum[i]=arr1[i]+arr2[i];
    }
    for(i=0;i<2;i++)
        printf("\n%d + %d = %d\n",arr1[i],arr2[i],sum[i]);

    return 0;
}
```

- **Vector sum**

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

int main()
{
    int arr1[2],arr2[2],i,product[2];
```

```

for (i=0;i<2;i++){
printf("Input 1st value ");
scanf("%d",&arr1[i]);
printf("Input 2nd value ");
scanf("%d",&arr2[i]);
product[i]=arr1[i]*arr2[i];
}
for(i=0;i<2;i++)
printf("%4d",product[i]);
return 0;
}

```

Practical 7

Array(Matrix)

```

#include <stdio.h>
#include <stdlib.h>

```

```

int main()
{
    int i,j;
    int array1[3][3] = {3,2,4,1,4,6,4,3,2};
    int array2[3][3] = {2,6,3,4,3,2,5,1,7};

```

```
int sum[3][3];
for(i=0;i<3;i++)
{
    for(j=0;j<3;j++)
    {
        printf("%d ",array1[i][j]);
    }
    printf("\t ");
    for(j=0;j<3;j++)
    {
        printf("%d ",array2[i][j]);
    }
    printf("\t ");
    for(j=0;j<3;j++)
    {
        printf("%d ",array1[i][j] + array2[i][j]);
    }
    printf("\n");
}
return 0;
}
```