LAB-5-EXTRA PROGRAMS

PROGRAM-1-MAXIMUM OF AN ARRAY

```c
//                              MAXIMUM OF AN ARRAY
#include <stdio.h>

int main()

{
  int a[10],i,n,max;
  printf("Enter the number of elements in array = \n");
  scanf("%d",&n);
  printf("Enter the elements in the array = \n");
  for(i=0;i<n;i++)
  {
  scanf("%d", &a[i]);
  }
  max=a[0];
  for(i=1;i<n;i++)
  {
  if(a[i]>max)
  {
  max=a[i];
  }
  }
  printf("Maximum element in an array = %d\n",max);
  }
```

OUTPUT:

```
Enter the number of elements in array =
4
Enter the elements in the array =
1 2 3 4
Maximum element in an array = 4

Process returned 0 (0x0)   execution time : 10.539 s
Press any key to continue.
```

```
Enter the number of elements in array =
6
Enter the elements in the array =
2 4 6 8 10 12
Maximum element in an array = 12

Process returned 0 (0x0)   execution time : 24.871 s
Press any key to continue.
```

```
Enter the number of elements in array =
5
Enter the elements in the array =
2 10 3 6 9
Maximum element in an array = 10

Process returned 0 (0x0)   execution time : 24.913 s
Press any key to continue.
```

PROGRAM-2-READ AND PRINT THE ELEMENTS OF AN ARRAY

```c
//                    READ AND PRINT THE ELEMENTS IN A ARRAY
#include <stdio.h>

int main()

{
    int a[1000],i,n;
    printf("Enter the number of elements in array = ");
    scanf("%d",&n);
    printf("Enter %d elements in the array = ",n);
    for(i=0;i<n;i++)
    {
    scanf("%d", &a[i]);
    }
    printf("\nElements in array are = ");
    for(i=0;i<n;i++)
    {
    printf("%d ", a[i]);
    }
    return 0;
}
```

OUTPUT:

```
Enter the number of elements in array = 10
Enter 10 elements in the array = 1 4 6 2 8 10 15 14 3 20

Elements in array are = 1 4 6 2 8 10 15 14 3 20
Process returned 0 (0x0)   execution time : 39.443 s
Press any key to continue.
```

```
Enter the number of elements in array = 5
Enter 5 elements in the array = 2 4 6 8 10

Elements in array are = 2 4 6 8 10
Process returned 0 (0x0)   execution time : 17.052 s
Press any key to continue.
```

```
Enter the number of elements in array = 3
Enter 3 elements in the array = 23 45 78

Elements in array are = 23 45 78
Process returned 0 (0x0)   execution time : 10.381 s
Press any key to continue.
```

PROGRAM-3-SMALLEST AND POSITION OF AN ARRAY

```c
//                    SMALLEST AND POSITION
#include<stdio.h>
void main()
{
    int a[10],n,i,p=0,small;
    printf("Enter int main::p of elements in the array = \n");
    scanf("%d",&n);
    printf("Enter the elements of array = \n");
    for(i=0;i<n;i++)
    {
        scanf("%d",&a[i]);
    }
    small=a[0];
    for(i=1;i<n;i++)
    {
        if(a[i]<small)
        {
            small=a[i];
            p=i;
        }
    }
    printf("The smallest element = %d\n",small);
    printf("The position of the element = %d\n",p);
}
```

OUTPUT:

```
Enter the number of elements in the array =
5
Enter the elements of array =
1 2 3 4 5
The smallest element = 1
The position of the element = 0

Process returned 32 (0x20)    execution time : 14.681 s
Press any key to continue.
```

```
Enter the number of elements in the array =
5
Enter the elements of array =
6 4 3 1 8
The smallest element = 1
The position of the element = 3

Process returned 32 (0x20)    execution time : 26.892 s
Press any key to continue.
```

```
Enter the number of elements in the array =
8
Enter the elements of array =
46 23 20 16 89 5 100 120
The smallest element = 5
The position of the element = 5

Process returned 32 (0x20)    execution time : 33.406 s
Press any key to continue.
```