Experiment 3
Date 6-10-2022

SMALLEST ELEMENT PRESENT USING POINTERS

Aim

Write a program to find the smallest number in a list of integers using pointers

1 Smallest number present using pointers

1.1 Algorithm

```
Step 1: initialize a[100]
Step 2: n=Input no: of elements
Step 3: for (i=0 to n)
    a[i]=Enter number
    end for
Step 4: s=*(a)
Step 5: for(i=0 to n)
     if (*(a+i)<s)
      s=*(a+i)
     end if
     end for
Step 6: print Smallest element is s
```

1.2 Program

```
#include <stdio.h>
void main()
{
    int a[100];
    int i, s, n;
    printf("Enter number of elements \n");
    scanf("%d", &n);
```

```
    printf("Enter elements to array\n");
    for (i = 0; i < n; i++)
    {
        scanf("%d", &*(a + i));
    }
    int temp = *a;
    for (i = 0; i < n; i++)
    {
        if (a[i] < temp)
        {
            temp = a[i];
        }
    }
    printf("Smallest is %d", temp);
}
```

1.3 Sample Input and Output

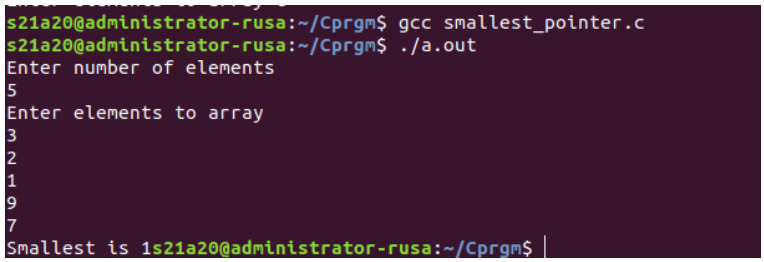

Figure 1: Output

1.4 Result

Successfully executed program to find the smallest element in an array provided using pointers.