Practical-4

• Implement a function of sequential search and count the steps executed by function on various inputs for best case and worst case. Also write complexity in each case and draw a comparative chart.

Code:

```
#include <stdio.h>

int main() {
        int step=1;
        int i;
        int a[]={77,102,86,109,84};
        int s;
        printf("Enter which element you want to search:\n");
        scanf("%d",&s);
        int count=0;
        for(i-0;i<6;i++,step++){
           count++;
           if(a[i]==s){
              printf("element is %d at position %d",s,i+1);
              printf("\nstep count=%d",count);
           }
        }
        if(count==0 && i>6){
           printf("element not found");
        }
}
```

OUTPUT:

Status Successfully executed **Date** 2022-04-24 05:14:02 **Time** 0.008504 sec **Mem** 5.46 kB

Input

```
77
```

Output

```
Enter which element you want to search:
element is 77 at position 1
step count=1
```