Aim:

Write a C program to implement **Fibonacci search** technique

Source Code:

FibonacciSearch.c

```
#include<stdio.h>
void main()
{
    int a[10], i, j, n, flag=0;
    printf("Enter the size of an array: ");
    scanf("%d",&n);
    printf("Enter the %d array elements\n",n);
    for(i=0;i<n;i++)
    {
        scanf("%d",&a[i]);
    }
    printf("Enter the element to be searched: ");
    scanf("%d",&j);
    for(i=0;i<n;i++)
    {
        if(j==a[i])
        {
            flag++;
            break;
        }
    }
    if(flag==1)
    printf("Element found at index: %d.\n",i);
    else
    printf("Element not found.\n");
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter the size of an array: 5
Enter the 5 array elements 3 4 5 6 7
Enter the element to be searched: 3
Element found at index: 0.

Test Case - 2
User Output
Enter the size of an array: 5
Enter the 5 array elements 3 4 5 6 7
Enter the element to be searched: 4
Element found at index: 1.