*NAME – DEEPAK BHATI*

*ROLL NO – 25581*

*DAA ASSIGNMENT ON BINARY SEARCH.*

```cpp
#include <iostream>
using namespace std;
int BinarySearch(int arr[] , int n , int key)
{  int s=0 ,l=n;
while (s<=l)
{
   int mid=(s+l)/2;
   if (key<arr[mid])
   {
     l=mid -1;
   }
   else if (key>arr[mid] )
   {
     s=mid+1;
   }
   else if (key ==arr[mid])
     return mid;
}
   return -1;

   }
```

```cpp
int main()
{   int n,key;
    cin>>n;
    int arr[n];
    for (int i=0;i<n;i++)
    {
        cin>>arr[i];
    }
    cin>>key;
   int r=BinarySearch(arr , n ,key);
    if (r==-1) cout<<key<<" is not present"<<endl;
    else {


    cout<<key<<" is present at index "<<BinarySearch(arr , n ,key) +1;
}
    return 0;
}
```

OUTPUT:1

6

15 18 21 45 67 899

899

899 is present at index 6

**OUTPUT: 2**

**8**

**34 67 98 99 123 139 666 999**

**10**

**10 is not present**