

**NAME: B.PRIYANKA(192421206)**

**COURSE NAME : DATA STRUCTURES FOR MODERN COMPUTING SYSTEMS**

**COURSE CODE : CSA0302**

**6.** **WRITE A C PROGRAM TO PERFORM BINARY SEARCH IN AN ARRAY**

**C PROGRAMMING CODE:**

#include <stdio.h>

int main() {

int a[100], n, i, key, low, high, mid, found=0;

printf("Enter number of elements: ");

scanf("%d", &n);

printf("Enter %d elements (in ascending order):\n", n);

for(i=0;i<n;i++) scanf("%d",&a[i]);

printf("Enter element to search: ");

scanf("%d",&key);

low=0; high=n-1;

while(low<=high){

mid=(low+high)/2;

if(a[mid]==key){

printf("Element found at position %d\n", mid+1);

found=1;

break;

}

else if(a[mid]<key) low=mid+1;

else high=mid-1;

}

if(!found) printf("Element not found\n");

return 0;

}

**OUTPUT:**

