**Experiment-3**

**Aim: Write a program to search an element from array using binary search.**

#include<iostream>

#include<stdio.h>

using namespace std;

int binarySearch(int arr[], int l, int r, int x)

{

if (r >= l) {

int mid = l + (r - l) / 2;

if (arr[mid] == x)

return mid;

if (arr[mid] > x)

return binarySearch(arr, l, mid - 1, x);

return binarySearch(arr, mid + 1, r, x);

}

return -1;

}

int main(void)

{

int arr[5];

cout<<"Enter sorted array";

for(int i=0;i<6;i++)

cin>>arr[i];

int x ;

cout<<"Enter element to search";

cin>>x;

int n = sizeof(arr) / sizeof(arr[0]);

int result = binarySearch(arr, 0, n - 1, x);

(result == -1) ? cout << "Element is not present in array"

: cout << "Element is present at index " << result;

return 0;

}

**Output -**

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