Experiment No. 4

Program : To implement Binary Search for ‘n’ number and perform analysis using DAC technique.

**Code:**

#include <stdio.h>

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

{

while (l <= r) {

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

if (arr[m] == x)

return m;

if (arr[m] < x)

l = m + 1;

else

r = m - 1;

}

return -1;

}

int main(void)

{

int arr[] = { 2, 3, 4, 10, 40 };

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

int x = 10;

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

(result == -1) ? printf("Element is not present"

" in array")

: printf("Element is present at "

"index %d",

result);

return 0;

}

**Output:**

