PROGRAM 9:

BINARY SEARCH

PROGRAM:

#include<stdio.h>

int main()

{

int c, first, last, middle, n, search, array[100];

printf("Enter number of elements\n");

scanf("%d",&n);

printf("Enter %d integers\n", n);

for ( c = 0 ; c < n ; c++ )

{

scanf("%d",&array[c]);

}

printf("Enter value to find\n");

scanf("%d",&search);

first = 0;

last = n - 1;

middle = (first+last)/2;

while( first <= last )

{

if ( array[middle] < search )

first = middle + 1;

else if ( array[middle] == search )

{

printf("%d found at location %d.\n", search, middle+1);

break;

}

else

last = middle - 1;

middle = (first + last)/2;

}

if ( first > last )

printf("Not found! %d is not present in the list.\n", search);

return 0;

}

OUTPUT:

