**APRIL 11 home questions**

#1. Binary Sort

Code:

#include <stdio.h>

int main()

{

    int c\_285,first\_285,last\_285, middle\_285, n\_285, key\_285, array\_285[100];

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

    scanf("%d",&n\_285);

    printf("Enter %d integers\n",n\_285);

    for(c\_285=0;c\_285<n\_285;c\_285++)

    {

        scanf("%d",&array\_285[c\_285]);

    }

    printf("Enter value to find\n");

    scanf("%d",&key\_285);

    first\_285=0;

    last\_285=n\_285-1;

    middle\_285=(first\_285+last\_285)/2;

    while(first\_285<=last\_285)

    {

        if(array\_285[middle\_285]<key\_285)

            first\_285= middle\_285 +1;

        else if(array\_285[middle\_285]==key\_285)

        {

            printf("%d is found at location %d.\n",key\_285,middle\_285+1);

            break;

        }

        else

        last\_285= middle\_285 -1;

        middle\_285 = (first\_285+last\_285)/2;

    }

    if(first\_285>last\_285)

    printf("NOT FOUND! %d IS NOT PRESENT IN THE LIST.\n",key\_285);

    return 0;

}

Output:



