**PROGRAMS :** 

//To implement binary search using functions

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#include<stdio.h>

void binary(int,int,int,int []);

int main(){

int low,high,n,x,arr[20];

printf("Enter the size of the array\n");

scanf("%d",&n);

for(int i=0;i<=n-1;i++){

scanf("%d",&arr[i]);

}

printf("The elements entered are\n");

for(int i=0;i<=n-1;i++){

printf("%d\t",arr[i]);

}

low=0;

high=n-1;

printf("Enter the search element\n");

scanf("%d",&x);

binary(low,high,x,arr);

return 0;

}

void binary(int low,int high,int x,int arr[]){ //function to handle binary search

int mid=(low+high)/2;

if(low>high){

printf("Not found!");

}

else{

if(arr[mid]==x){

printf("Found %d at location %d",x,mid+1);

}

else if(arr[mid]>x){

binary(low,mid-1,x,arr);

}

else{

binary(mid+1,high,x,arr);

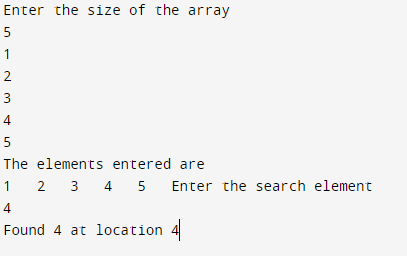
}

}

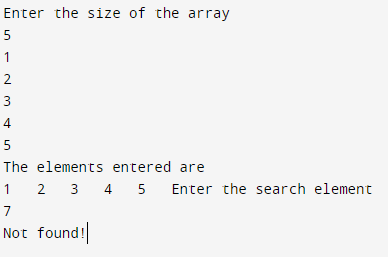
}

**Output:**

**Successful**

****

**Unsuccessful**

****