

P6 - Binary Search program with Line numbers required for the writing the Program Graph.

```
#include<stdio.h>
```

```
1. int main()
```

```
{
```

```
2. int a[20],n,low,high,mid,key,i,flag=0;
```

```
3. printf("Enter the value of n:\n");
```

```
4. scanf("%d",&n);
```

```
5. if(n>0)
```

```
{
```

```
6. printf("Enter %d elements in ASCENDING order\n",n);
```

```
7. for(i=0;i<n;i++)
```

```
8. scanf("%d",&a[i]);
```

```
9. printf("Enter the key element to be searched\n");
```

```
10. scanf("%d",&key);
```

```
11. low=0;
```

```
12. high=n-1;
```

```
13. while(low<=high)
```

```
{
```

```
14 mid=(low+high)/2;
```

```
15 if(a[mid] == key)
```

```
{
```

```
16. flag=1;
```

```
17. break;
```

```
    }  
    18. else if(a[mid]<key)  
        19. low=mid+1;  
    20. else  
        high=mid-1;  
    }  
    21. if(flag == 1)  
        22. printf("Element found at Location %d\n",mid+1);  
    23. else  
        printf("Key Element not found\n");  
    }  
    24. else  
        printf("Wrong input");  
    25. return 0;  
}
```