Feb10 DSA Day5

February 10, 2021

```python
[2]: l = [int(i) for i in input('Enter values: ').split()] # 10, 20, 30, 40, 50

x = int(input('Enter the element to search: '))

for i in range(0, len(l)):
    if l[i] == x:
        print('Element found at index', i)
        break
else:
    print('Element not found')
```

```
Enter values: 13 11 9 7 5 0 8
Enter the element to search: 0
Element found at index 5
```

```python
[5]: def binarysearch(x):
    beg = 0
    end = len(l) - 1

    while beg <= end:
        mid = (beg + end) // 2
        if x == l[mid]:
            return mid
        elif x < l[mid]:
            end = mid - 1
        else:
            beg = mid + 1
    return -1

l = [int(i) for i in input('Enter values: ').split()] # 10, 20, 30, 40, 50

x = int(input('Enter the element to search: '))

pos = binarysearch(x)
if pos == -1:
    print('element not found')
else:
    print('element found at', pos)
```

```
Enter values: 10 20 30 40 50 60
Enter the element to search: 45
element not found
```

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