Binary search

April 30, 2021

[1]:
```
def binary_search(ordered_list, term):
    size_of_list = len(ordered_list) - 1 # map it to the indexing
    index_of_first_element = 0
    index_of_last_element = size_of_list
    while index_of_first_element <= index_of_last_element:
        mid_point = (index_of_first_element + index_of_last_element)//2  # int
↪div
        if ordered_list[mid_point] == term:
            return mid_point
        if term > ordered_list[mid_point]:
            index_of_first_element = mid_point + 1
        else:
            index_of_last_element = mid_point - 1
```

[2]:
```
store = [2, 4, 5, 12, 43, 54, 60, 77]
```

[3]:
```
a = binary_search(store, 2)
print("Index position of value 2 is ",a)
```

```
Index position of value 2 is  0
```

[4]:
```
a = binary_search(store, 44)
print("Index position of value 44 is ",a)
```

```
Index position of value 44 is  None
```

0.0.1 Try implementing binary search -recurssive logic

[ ]:
```

```