

DAA Lab-1

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Roll number – SE20UCSE040

Linear Search

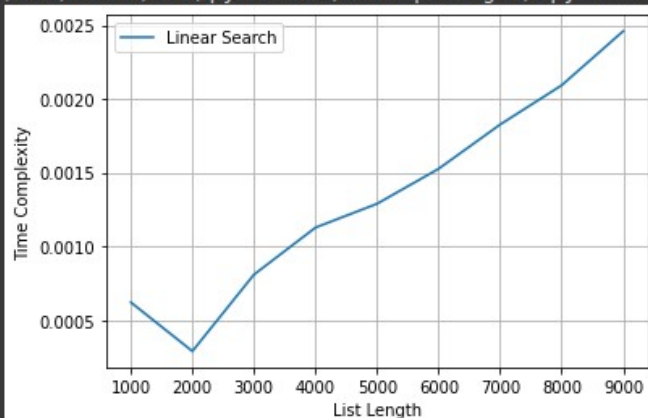
When I tried with 5 elements-

```
Enter number of elements : 5
Enter the element you want to search: 3
Enter the elements:
1
2
3
4
5
[1, 2, 3, 4, 5]
Element is present at index 2
```

When I tried with larger number of elements to find time complexity-

```
1000 Elements used in LinearSearch: 0.0006209999999997606
2000 Elements used in LinearSearch: 0.00029000000000001235
3000 Elements used in LinearSearch: 0.00080899999999998376
4000 Elements used in LinearSearch: 0.00112800000000000179
5000 Elements used in LinearSearch: 0.00128899999999998736
6000 Elements used in LinearSearch: 0.00152599999999996943
7000 Elements used in LinearSearch: 0.00182599999999998833
8000 Elements used in LinearSearch: 0.00209200000000000205
9000 Elements used in LinearSearch: 0.0024589999999999989
```

```
/usr/local/lib/python3.7/dist-packages/ipykernel_launcher.py:40: DeprecationWarning: time.clock() is deprecated
/usr/local/lib/python3.7/dist-packages/ipykernel_launcher.py:42: DeprecationWarning: time.clock() is deprecated
```



Binary Search

When I tried with 5 elements-

```
Enter number of elements : 5
Enter the element you want to search: 5
Enter the elements:
1
2
3
4
5
[1, 2, 3, 4, 5]
Element is present at index 4
```

When I tried with larger number of elements to find time complexity-

