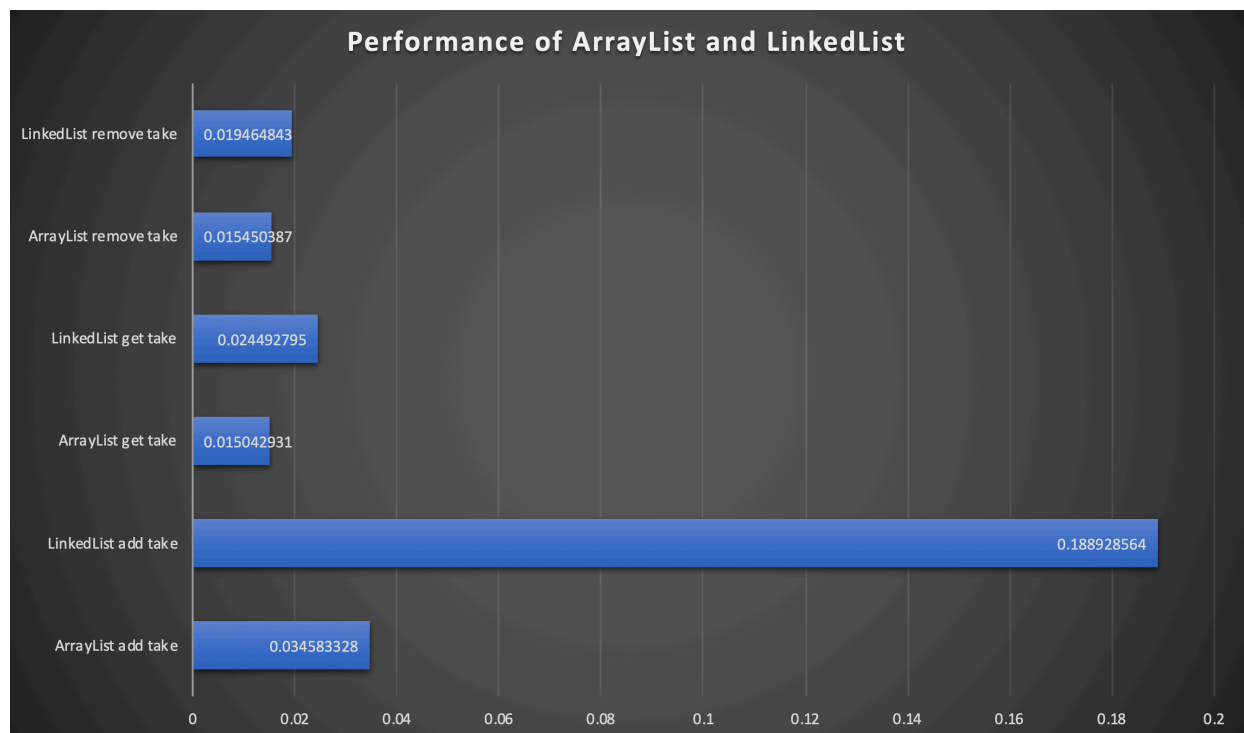# DATA STUCTURE HOMEWORK 3

By JING PANG

The performance of ArrayList and LinkedList produces by the Java program as attached. The following graph presents the real computer time performances of ArrayList and LinkedList in adding, getting and removing.

```
Java List Comparsion:
ArrayList add take: 0.034583328 sec
LinkedList add take: 0.188928564 sec
ArrayList get take: 0.015042931 sec
LinkedList get take: 0.024492795 sec
ArrayList remove take: 0.015450387 sec
LinkedList remove take: 0.019464843 sec
Disconnected from the target VM, address: '127.0.0.1:51292', transport: 'socket'
```


To conclude from the bar graph above, considering the comparison of adding in both List, the LinkedList require more time to complete the program. But the LinkedList is sufficient than ArrayList if getting the value from List. ArrayList is a little bit faster than LinkedList when removing the value from last.