```
1 C:\Users\Chris\AppData\Local\Microsoft\WindowsApps\
   python3.10.exe C:\Users\Chris\Documents\GitHub\CS-
   3310\Assignments\Assignment_4.py
 2 Number of elements in LinkedList:
                                      2303
 3
 4 *** Linear Search Test ***
 5
 6 Before sorting:
 7 First 5 elements from linked list:
 8 284926400, Reversi, 3.5, 284, Kiss The Machine,
   12328960
 9 284946595, Morocco, 3.0, 8376, Bayou Games, 674816
10 285755462, Sudoku (Free), 3.5, 190394, Mighty Mighty
   Good Games, 21552128
11 286210009, Sudoku - Classic number puzzle, 3.0, 47,
   OutOfTheBit Ltd, 48672768
12 286313771, Gravitation, 2.5, 35, Robert Farnum,
   6328320
13
14 Single search:
15 Searching for Mobile Aquarium...
16 327755335, Mobile Aquarium, 3.0, 15277, TLogic.de,
   8482816
17 Mobile Aquarium was found in 69,600 ns
18
19 Multiple linear search:
20 Searching for:
        Hack NET
21
22
        Find the differences Puzzle - Spot the
   Difference games
23
        Rush for gold: California
24
        Sudoku XL Free
25
        SimpleChess (Online)
26
        World to Conquer
27
        Sudoku
28
        Bombardment - Battleship Duell
29
        Sudoku HD
30
        Avoid The Pipes
31
32 Average linear search time of gamesLinkedList across
   10 iterations is:
```

```
33
        494,560 ns
34
35
36 *** Binary Search Test ***
37
38 Time for insertion_sort: 25,442,996,600 ns
39 Time for quick_sort: 475,108,000 ns
40
41 After sorting:
42 First 5 elements from linked list:
43 432022189, #Lost in Space, 3.0, 20, Deca Games EOOD,
   131874816
44 905197630, 1 - 100, 4.0, 55, TapMedia Ltd, 55102464
45 356086906, 1 2 25, 3.0, 13433, Team17 Software Ltd,
   529755136
46 635607850, 1,000,000+ Skins Creator for Minecraft
   Edition, 4.5, 8828, manastone inc., 72614912
47 405430582, 10-in-1 Board Games BA.net, 2.5, 109,
   Tyflos Accessible Software, 7204864
48
49 Multiple binary search:
50 Searching for:
51
        Hack NET
52
        Find the differences Puzzle - Spot the
   Difference games
        Rush for gold: California
53
54
        Sudoku XL Free
55
        SimpleChess (Online)
56
        World to Conquer
57
        Sudoku
        Bombardment - Battleship Duell
58
59
        Sudoku HD
60
        Avoid The Pipes
61
62 Average binary search time of gamesLinkedList across
   10 iterations is:
63
        375,260 ns
64
65
66 *** Breakpoint Test ***
67
```

```
68 Time for list: 322,500 ns
69
70 Average binary search time of gamesPrimitiveList
   across 10 iterations is:
        7,270 ns
71
72
73 Break point m = 976 between repeated linear searches
    and sort-once & multiple binary searches.
74
75 Process finished with exit code 0
76
```