```
 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 Fish Balls...
16 463644128, Fish Balls, 4.5, 18, Applied Computer
   Concepts Ltd., 39980032
17 Fish Balls was found in 367,300 ns
18
19 Multiple linear search:
20 Searching for:
21      Chain Rxn Free
22      Toilet Treasures - Time for a Bathroom Adventure
   Game
23      CivCrafter
24      Rogue Vertex
25      Play 500
26      Medieval Rush
27      Marble Maze Race Lite
28      RuneMasterPuzzle
29      Lux Touch 3 - World Domination
30      Little Commander - World War II TD
31
32 Average linear search time of gamesLinkedList across
   10 iterations is:
```

```
33      528,250 ns
34
35
36 *** Binary Search Test ***
37
38 Time for insertion_sort: 25,379,762,300 ns
39 Time for quick_sort: 463,907,500 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      Chain Rxn Free
52      Toilet Treasures - Time for a Bathroom Adventure
   Game
53      CivCrafter
54      Rogue Vertex
55      Play 500
56      Medieval Rush
57      Marble Maze Race Lite
58      RuneMasterPuzzle
59      Lux Touch 3 - World Domination
60      Little Commander - World War II TD
61
62 Average binary search time of gamesLinkedList across
   10 iterations is:
63      480,530 ns
64
65
66 *** Breakpoint Test ***
67
```

```
68 Time for list: 317,200 ns
69
70 Average binary search time of gamesPrimitiveList
   across 10 iterations is:
71     7,700 ns
72
73 Break point m = 892 between repeated linear searches
    and sort-once & multiple binary searches.
74
75 Process finished with exit code 0
76
```