Sample Runs for Exercise 1:

Enter a number (n): 100

Bubble sort of list where n (size) = 100 took 0 ms

Enter a number (n): 1000

Bubble sort of list where n (size) = 1000 took 19 ms

Enter a number (n): 5000

Bubble sort of list where n (size) = 5000 took 75 ms

Enter a number (n): 10000

Bubble sort of list where n (size) = 10000 took 124 ms

Enter a number (n): 50000

Bubble sort of list where n (size) = 50000 took 3172 ms

Table:

|  |  |
| --- | --- |
| N | execution time |
| 100 | 0 |
| 1000 | 19 |
| 5000 | 75 |
| 10000 | 124 |
| 50000 | 3172 |

Graph:

Sample Runs for Exercise 2:

Enter a number (n): 100

Selection sort of list where n (size) = 100 took 0 ms

Enter a number (n): 1000

Selection sort of list where n (size) = 1000 took 10 ms

Enter a number (n): 5000

Selection sort of list where n (size) = 5000 took 37 ms

Enter a number (n): 10000

Selection sort of list where n (size) = 10000 took 64 ms

Enter a number (n): 50000

Selection sort of list where n (size) = 50000 took 688 ms

Table:

|  |  |
| --- | --- |
| N | execution time |
| 100 | 0 |
| 1000 | 10 |
| 5000 | 37 |
| 10000 | 64 |
| 50000 | 688 |

Graph: