**ASSIGNMENT 2**

**ADARSH RANA**

**3203**

**COMP A**

**#Selection sort**

|  |  |  |  |
| --- | --- | --- | --- |
| SIZE | NO. OF COMPARISON | NO. OF SWAPPING | EXECUTION(in ms) |
| 10 | 45 | 9 | 2.400193929672241 |
| 50 | 1225 | 49 | 2.537393808364868 |
| 100 | 4950 | 99 | 2.7035746574401855 |
| 500 | 124750 | 499 | 2.963529586791992 |
| 1000 | 499500 | 999 | 3.3239545822143555 |
| 10000 | 49995000 | 9999 | 12.231792449951172 |

**#Bubble sort**

|  |  |  |  |
| --- | --- | --- | --- |
| SIZE | NO. OF COMPARISON | NO. OF SWAPPING | EXECUTION(in ms) |
| 10 | 45 | 45 | 2.510976552963257 |
| 50 | 1225 | 1225 | 2.6612355709075928 |
| 100 | 4950 | 4950 | 3.0473012924194336 |
| 500 | 124750 | 124750 | 3.320939540863037 |
| 1000 | 499500 | 499500 | 4.144501409999975 |
| 10000 | 49995000 | 49995000 | 25.45417970499966 |

**#Insertion sort**

|  |  |  |  |
| --- | --- | --- | --- |
| SIZE | NO. OF COMPARISON | NO. OF SHIFTING | EXECUTION(in ms) |
| 10 | 45 | 45 | 2.5219788551330566 |
| 50 | 1225 | 1225 | 2.8006787300109863 |
| 100 | 4950 | 4950 | 2.8980185985565186 |
| 500 | 124750 | 124750 | 3.2507667541503906 |
| 1000 | 499500 | 499500 | 3.943741798400879 |
| 10000 | 49995000 | 49995000 | 24.19819211959839 |

A screenshot of a computer

AI-generated content may be incorrect.

A computer screen shot of a computer screen

AI-generated content may be incorrect.

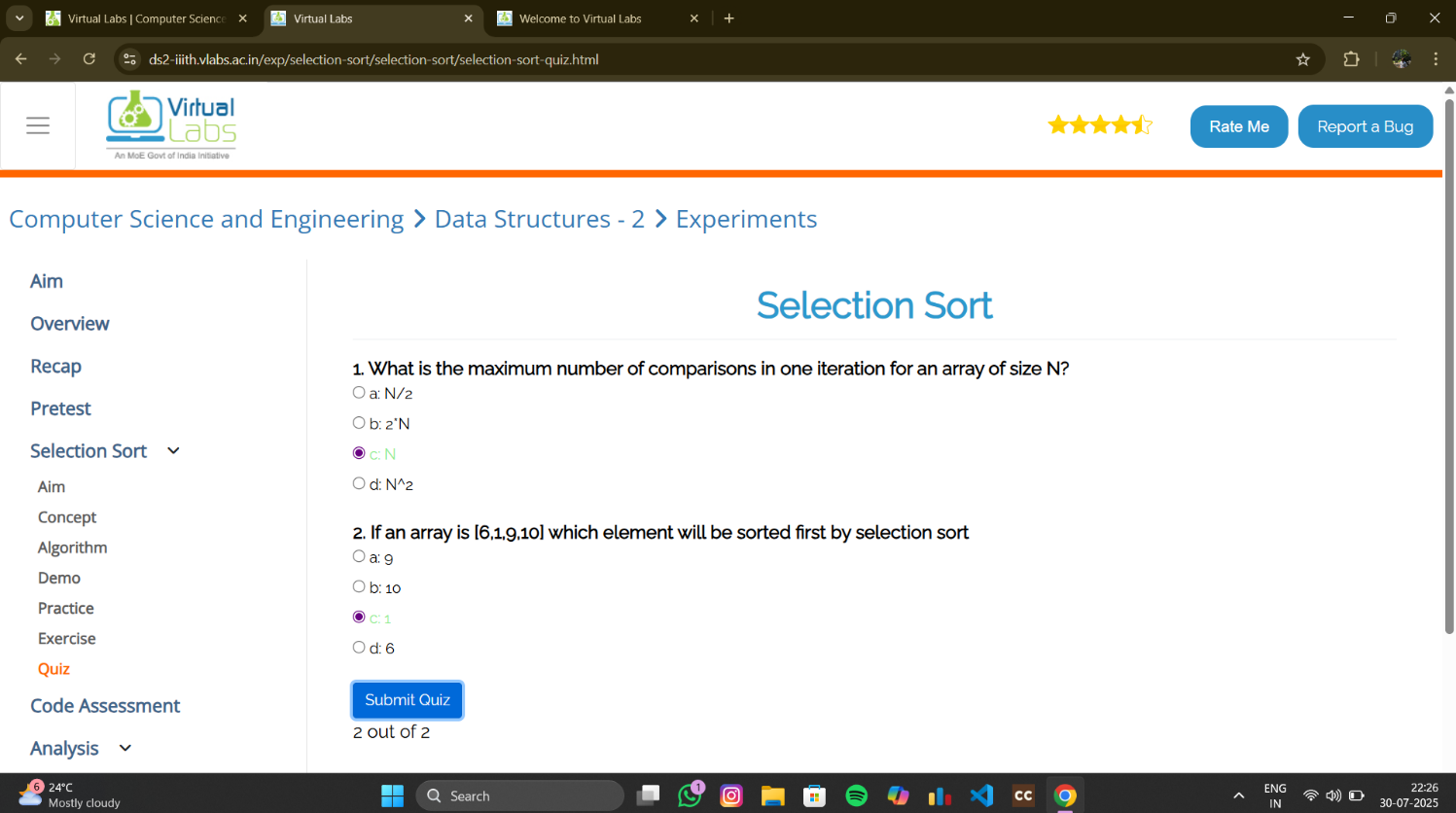
A computer screen shot of a computer

AI-generated content may be incorrect.

A computer screen shot of a computer screen

AI-generated content may be incorrect.A screenshot of a computer

AI-generated content may be incorrect.



A computer screen with a white background

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