Egyptian Russian University
Faculty of Artificial Intelligence

Algorithms

ABA Sorting System ^_^

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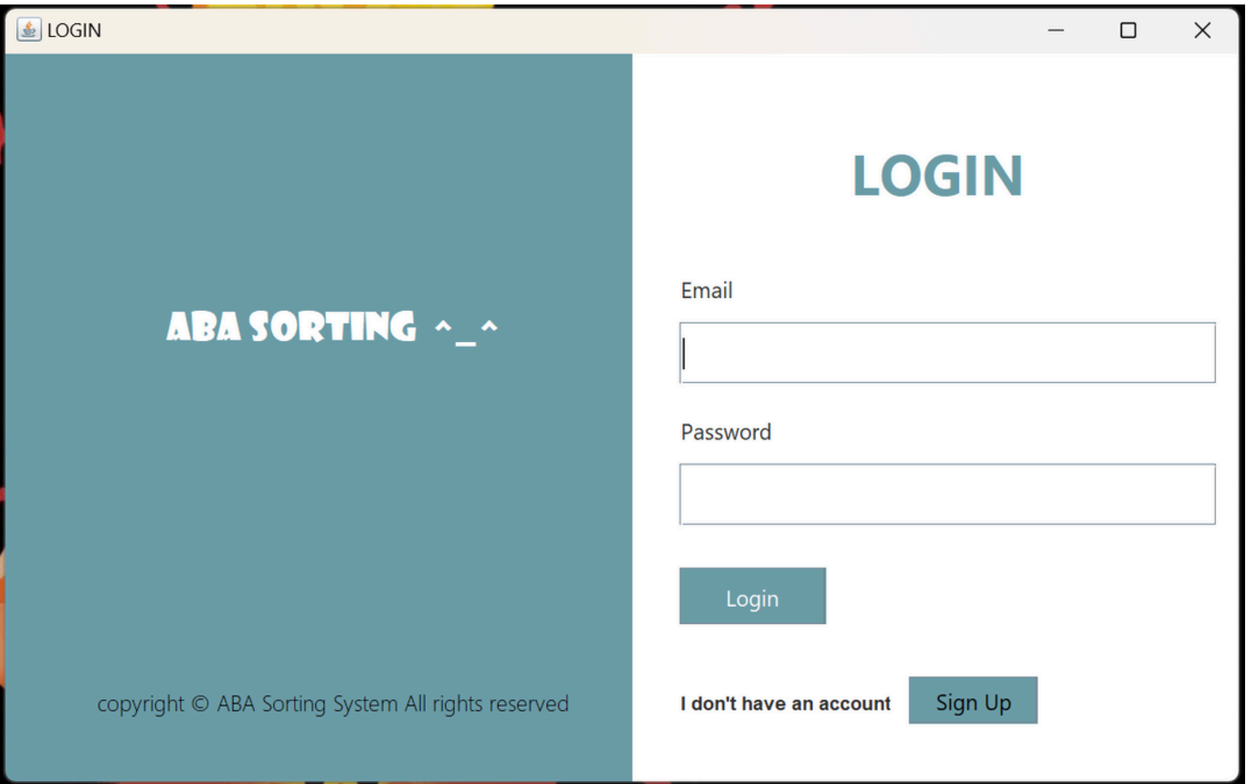
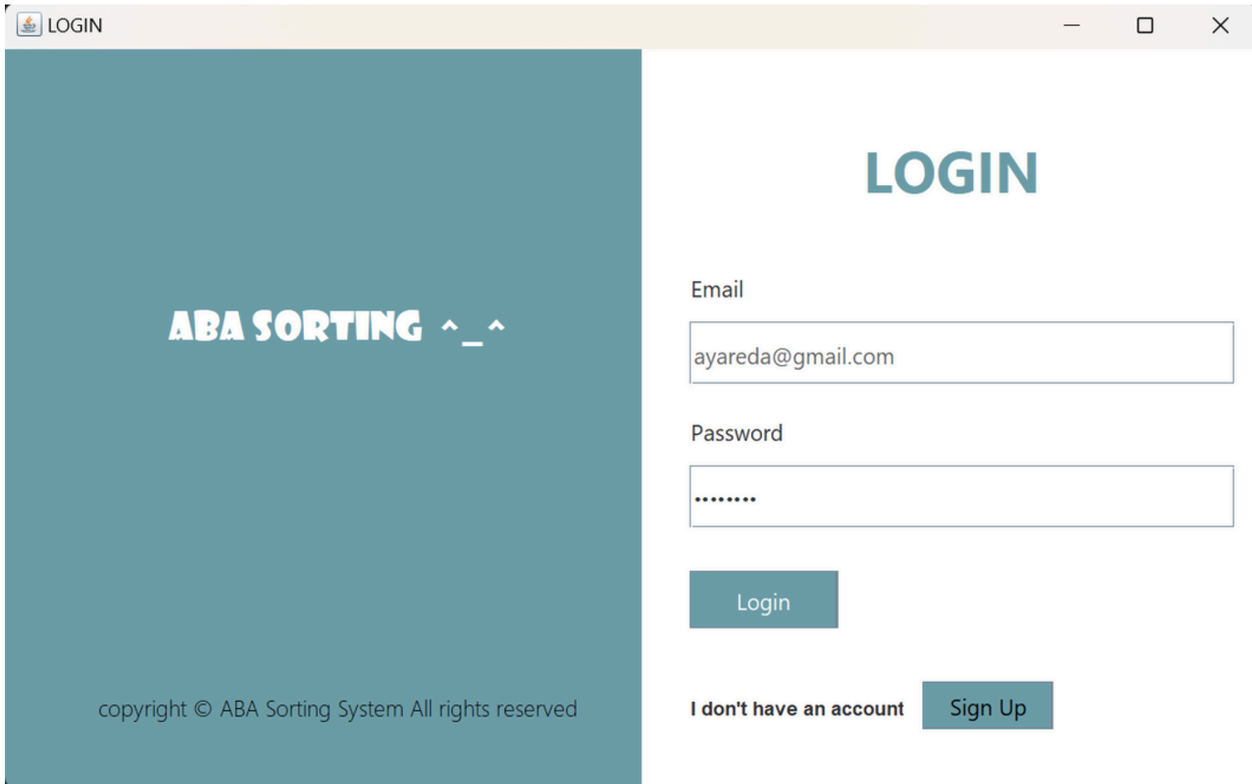
LOGIN PAGE :

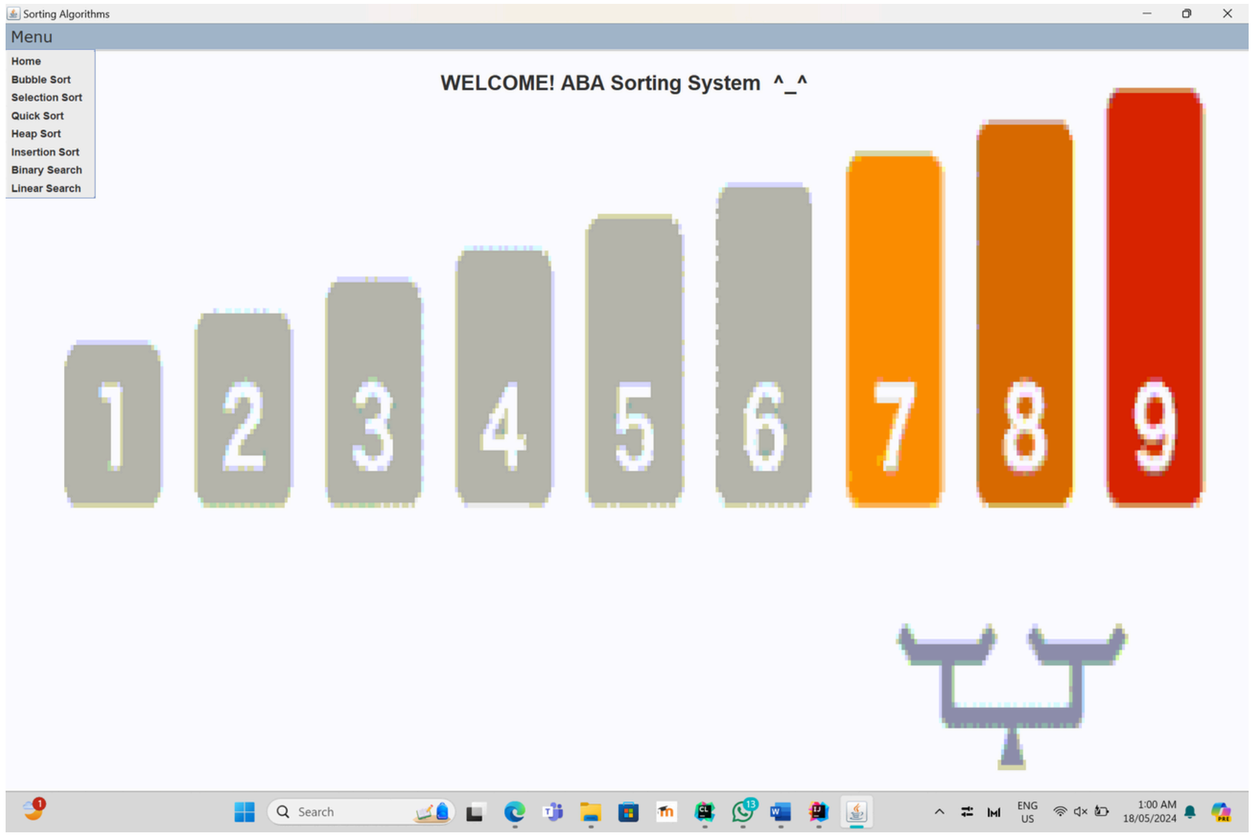
THE LOGIN CLASS REPRESENTS A GRAPHICAL USER INTERFACE (GUI) FOR A LOGIN SCREEN IN A JAVA SWING APPLICATION. IT ALLOWS USERS TO ENTER THEIR EMAIL AND PASSWORD, THEN CLICK A "LOGIN" BUTTON TO ATTEMPT LOGIN. IF THE CREDENTIALS MATCH A PREDEFINED SET (IN THIS CASE, "AYAREDA@GMAIL.COM" AND "12345678"), IT OPENS THE MAIN APPLICATION WINDOW. OTHERWISE, IT DISPLAYS AN ERROR MESSAGE. ADDITIONALLY, THERE'S A "SIGN UP" BUTTON THAT OPENS A SIGNUP WINDOW FOR NEW USERS. THE CLASS UTILIZES EVENT HANDLING TO RESPOND TO USER ACTIONS SUCH AS BUTTON CLICKS.



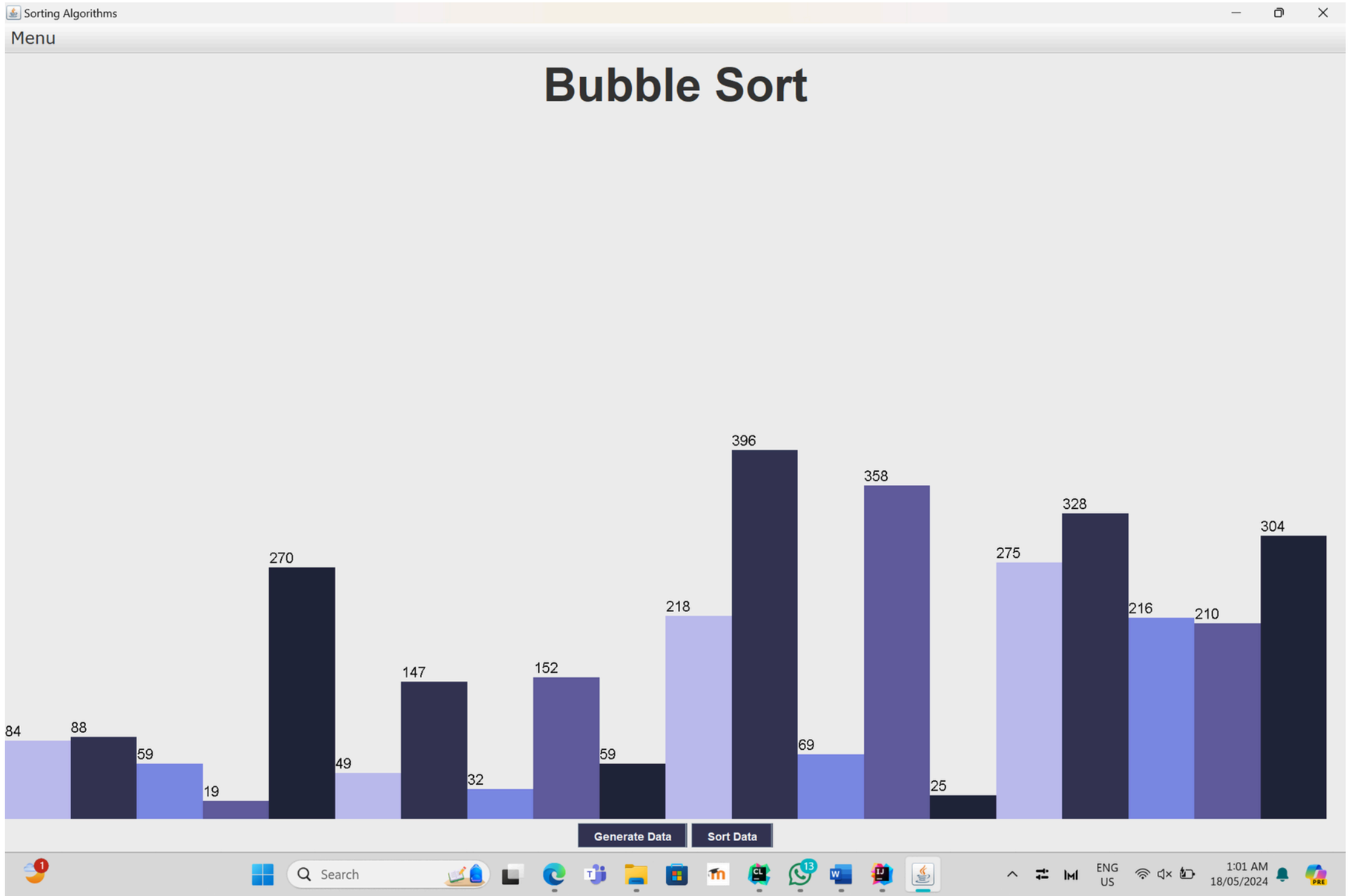


HOME PAGE:

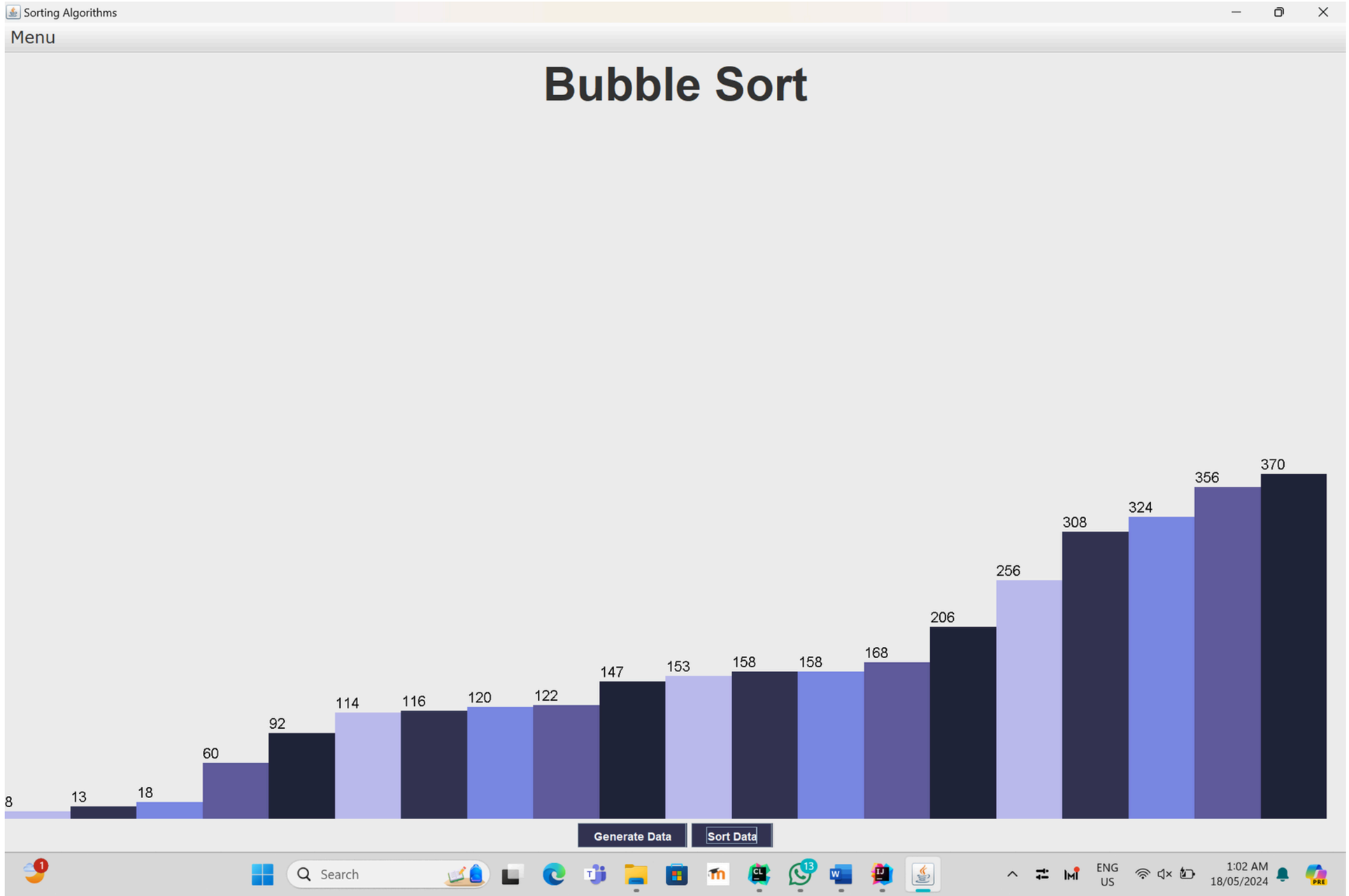
This main page has a drop-down list at the word “Menu” from which we can choose the type of sort or search that we need to make.



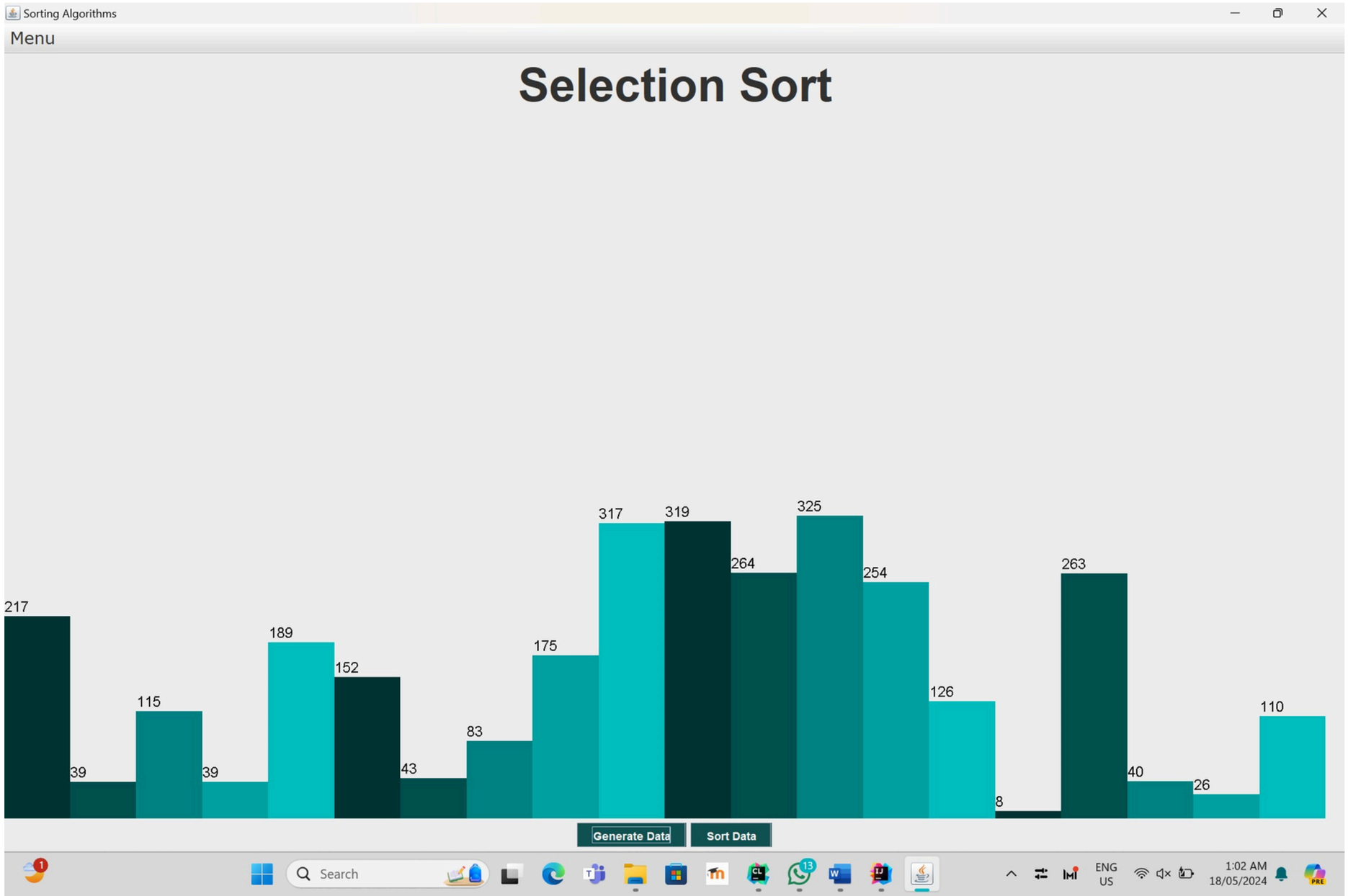
BUBBLE SORT: Random values can be changed by clicking on the generate data button, and when clicking on the sort data button, the elements are arranged in a visualization manner



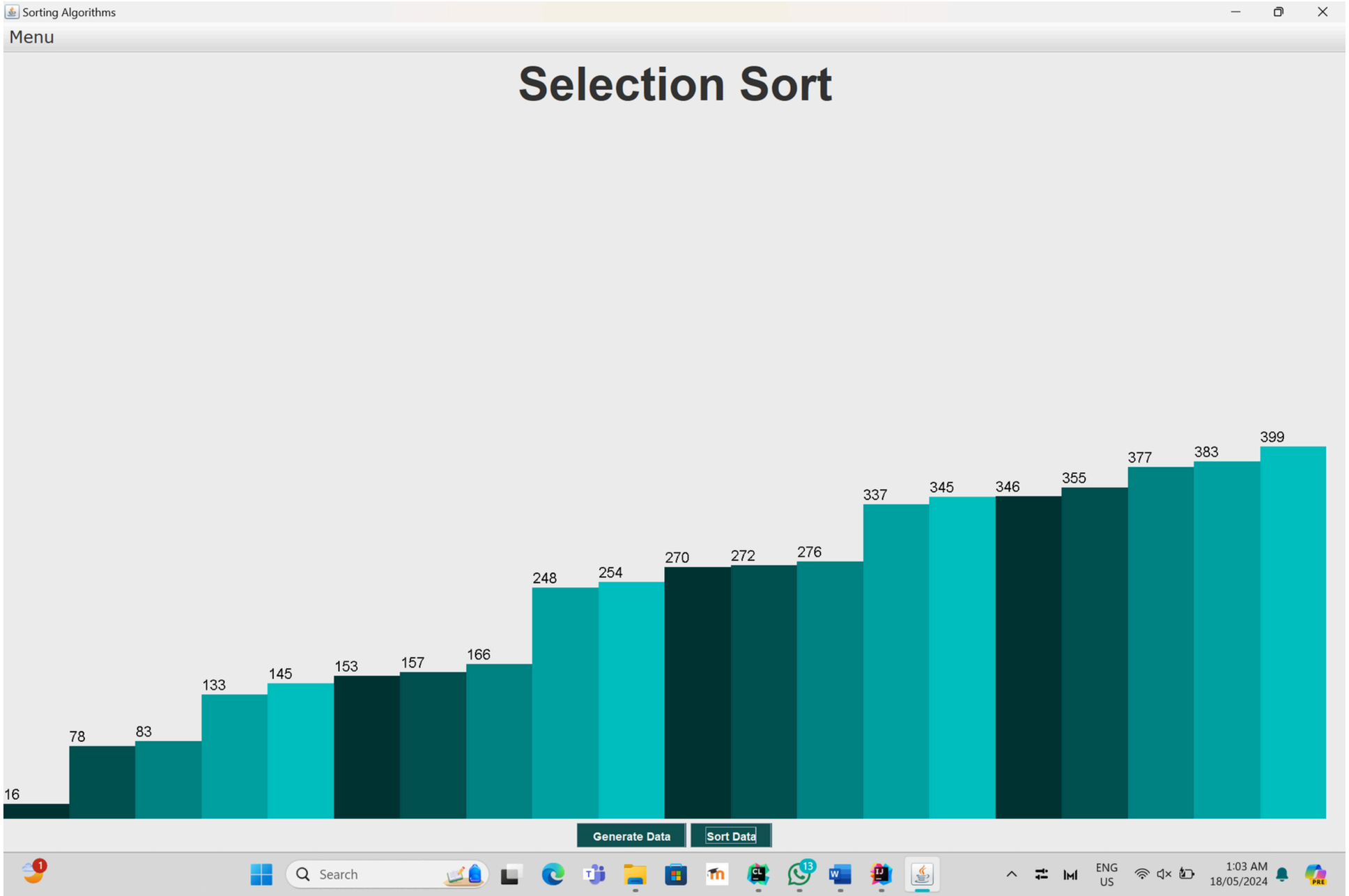
Items after sorting



SELECTION SORT: Random values can be changed by clicking on the generate data button, and when clicking on the sort data button, the elements are arranged in a visualization manner

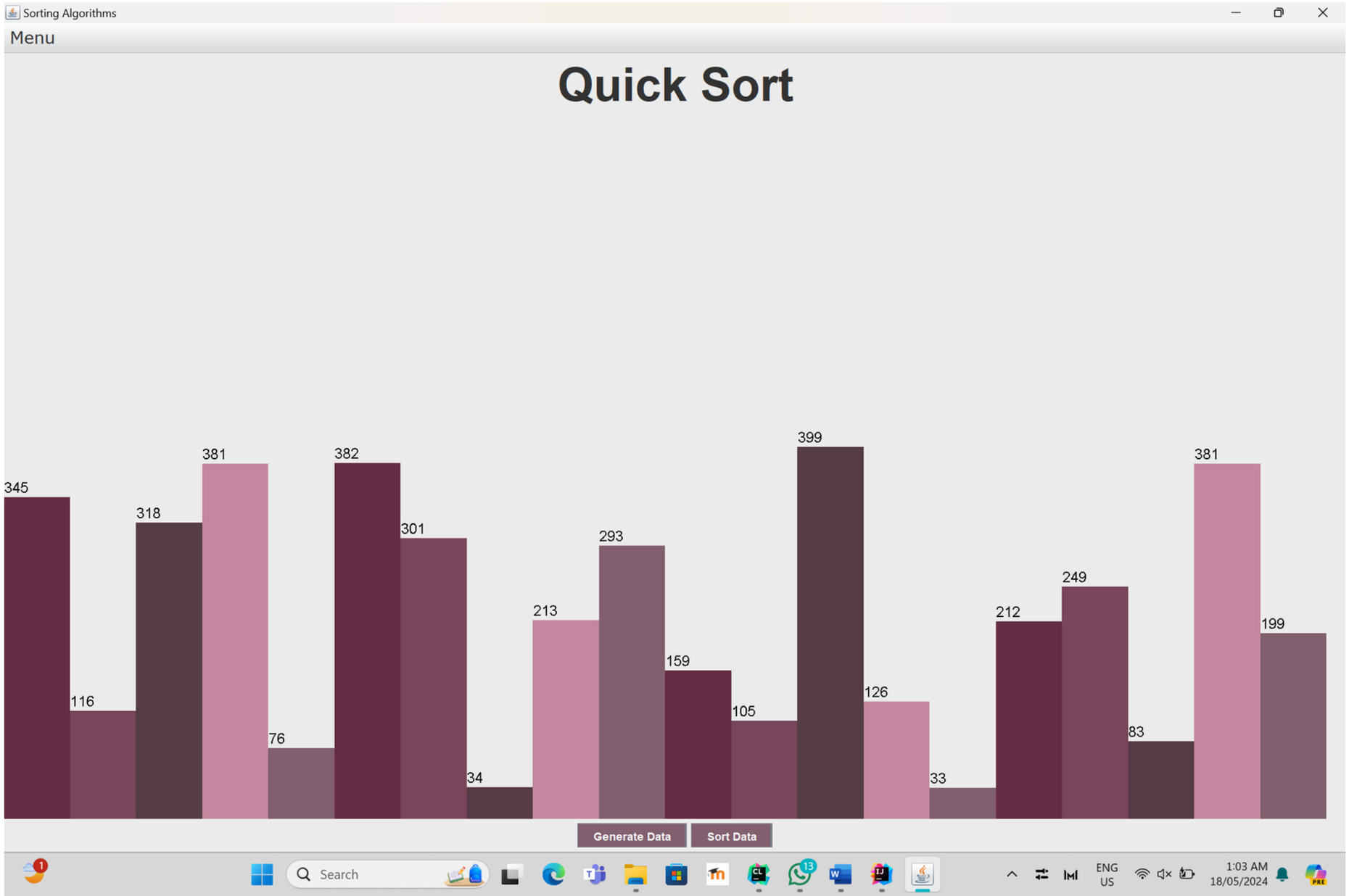


Items after sorting

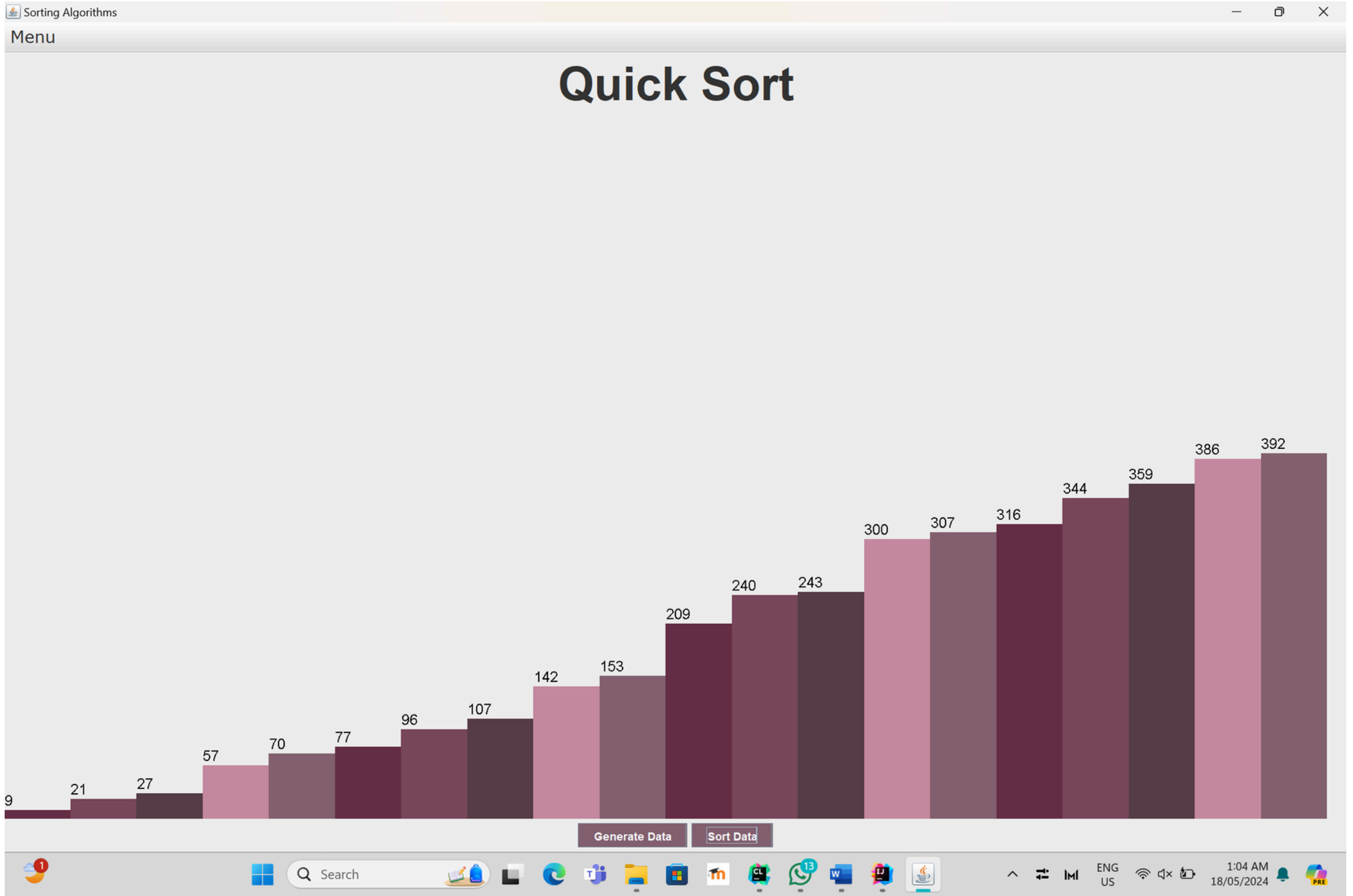


QUICk SORT:

Random values can be changed by clicking on the generate data button, and when clicking on the sort data button, the elements are arranged in a visualization manner

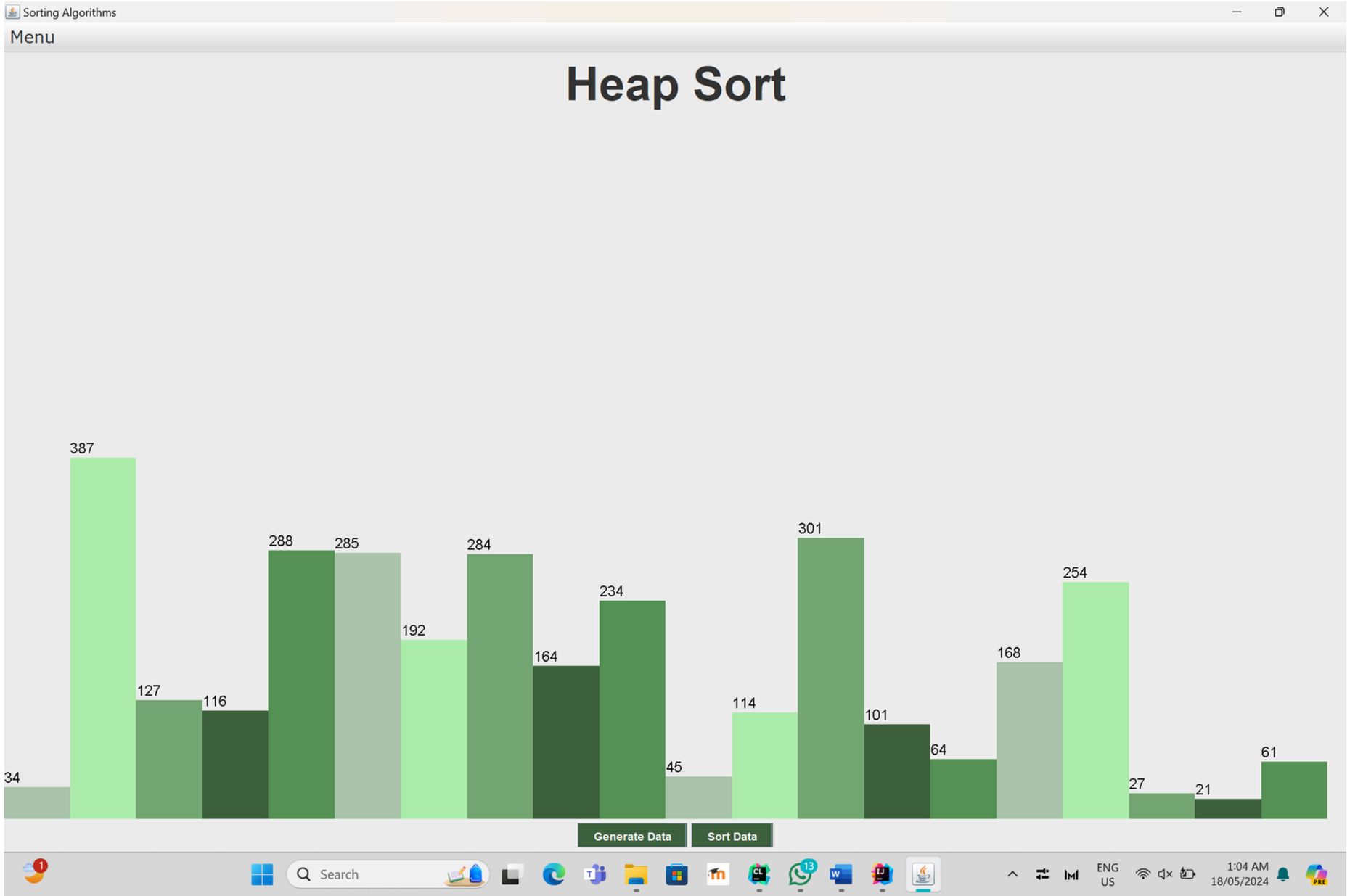


Items after sorting

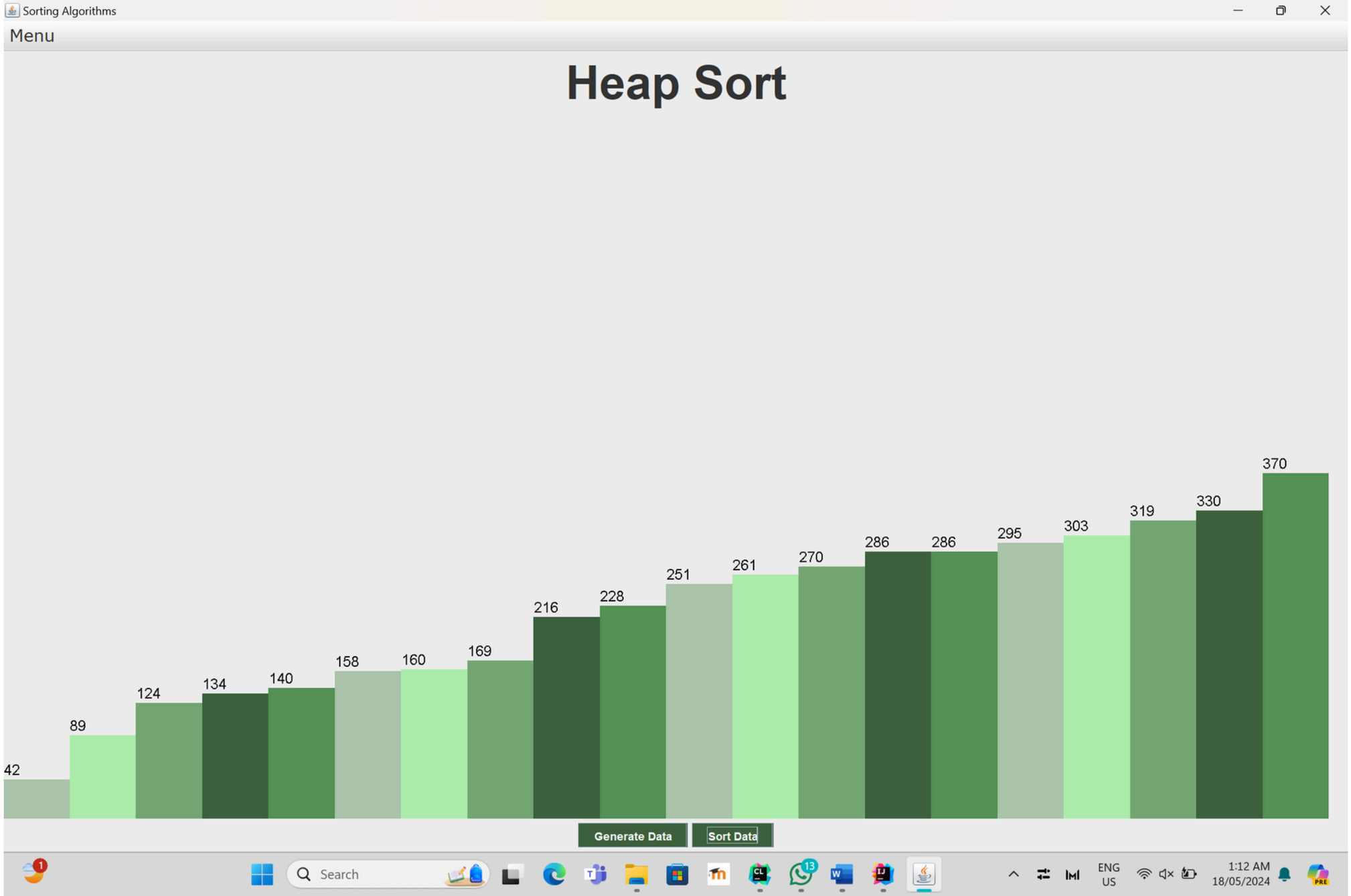


HEAP SORT:

Random values can be changed by clicking on the generate data button, and when clicking on the sort data button, the elements are arranged in a visualization manner

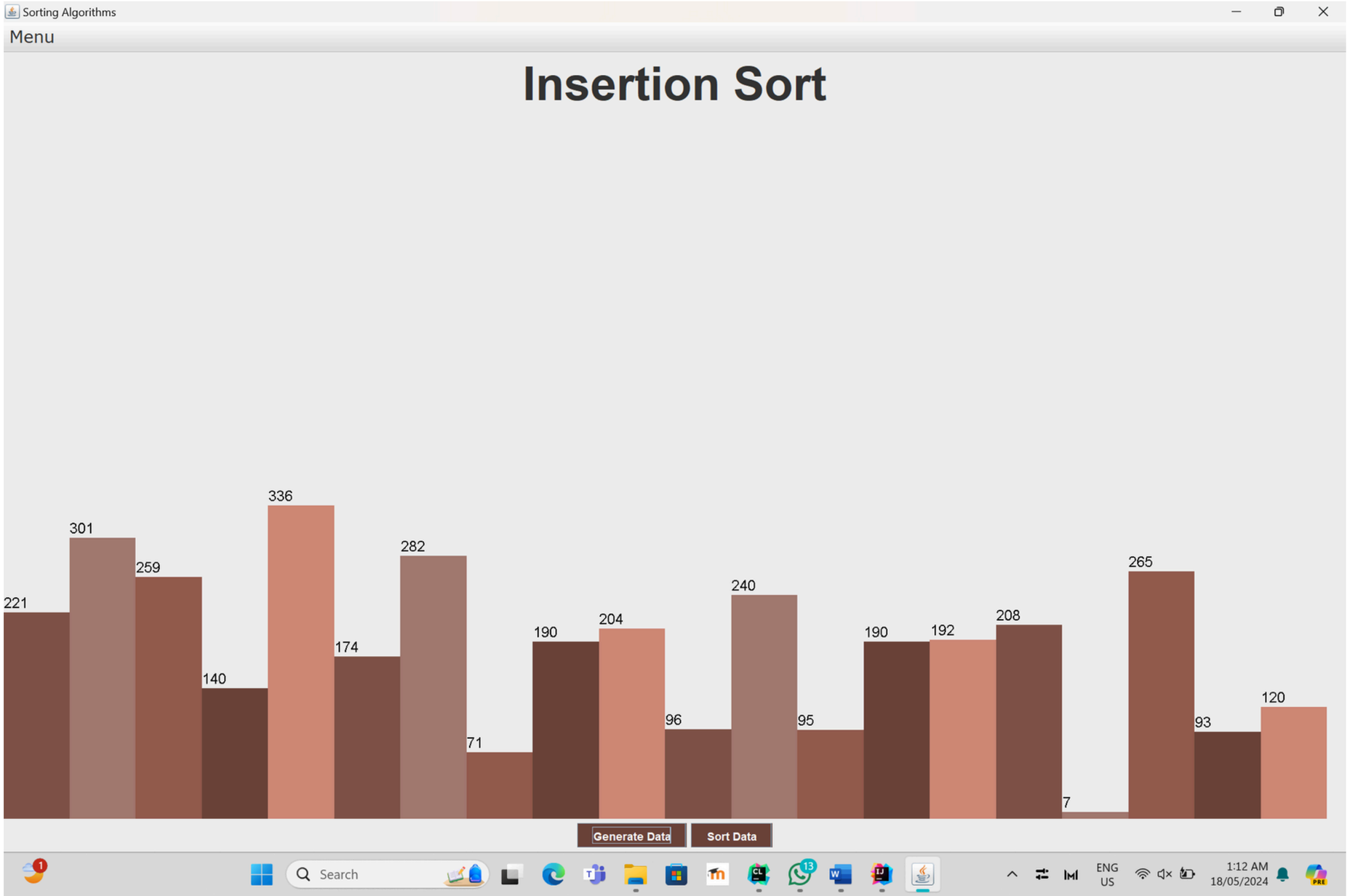


Items after sorting

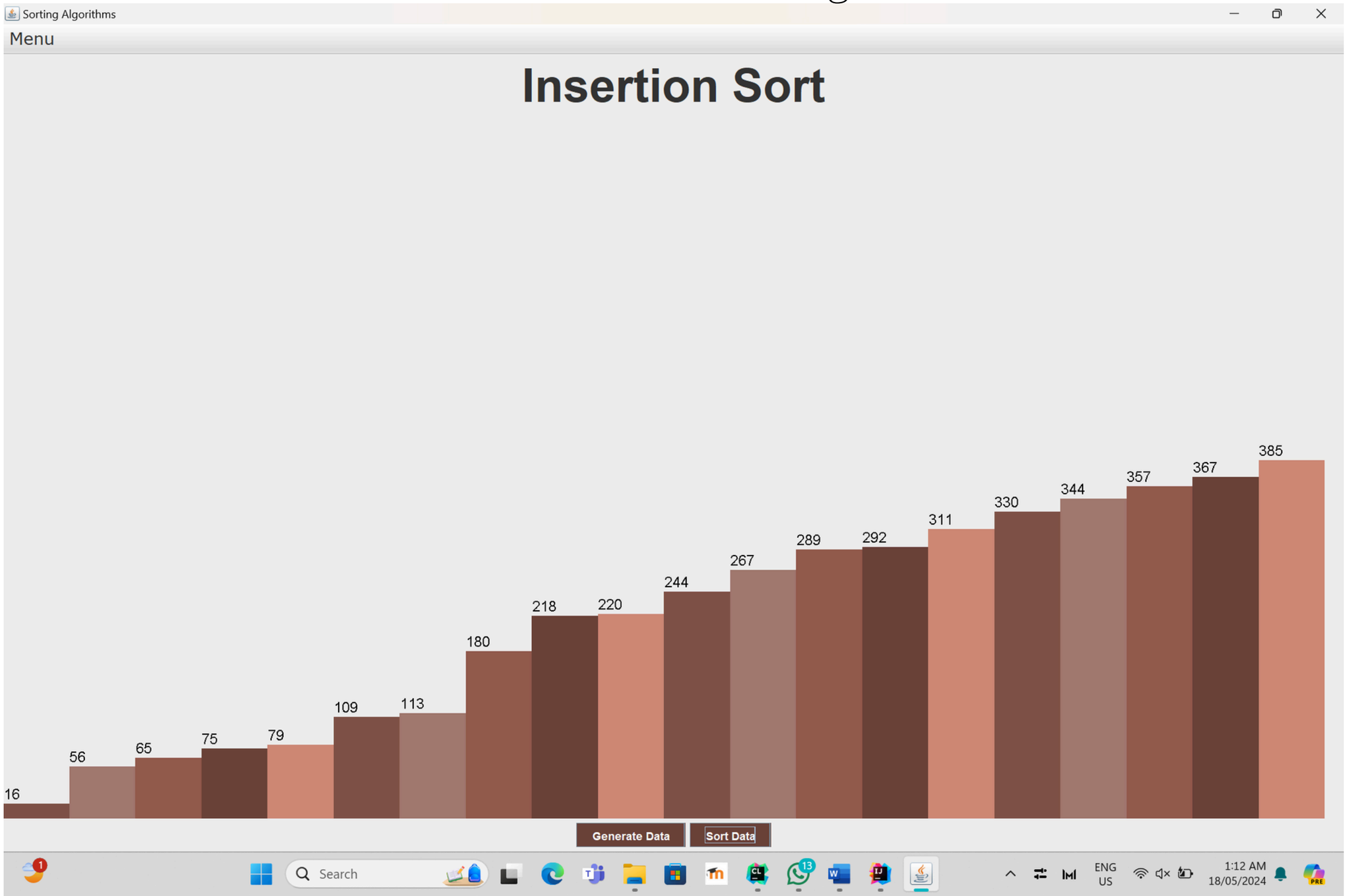


INSERTION SORT:

Random values can be changed by clicking on the generate data button, and when clicking on the sort data button, the elements are arranged in a visualization manner

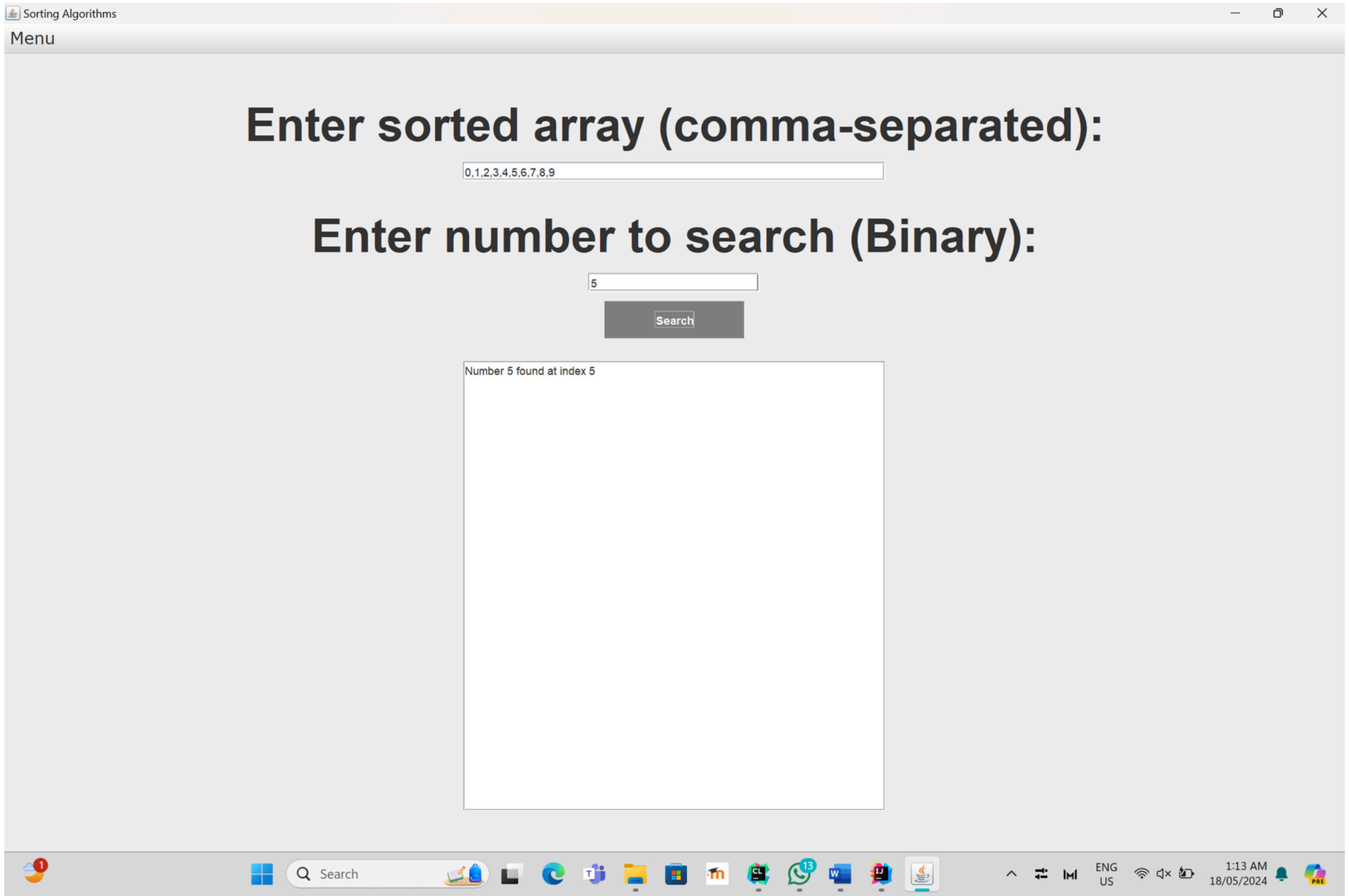


Items after sorting



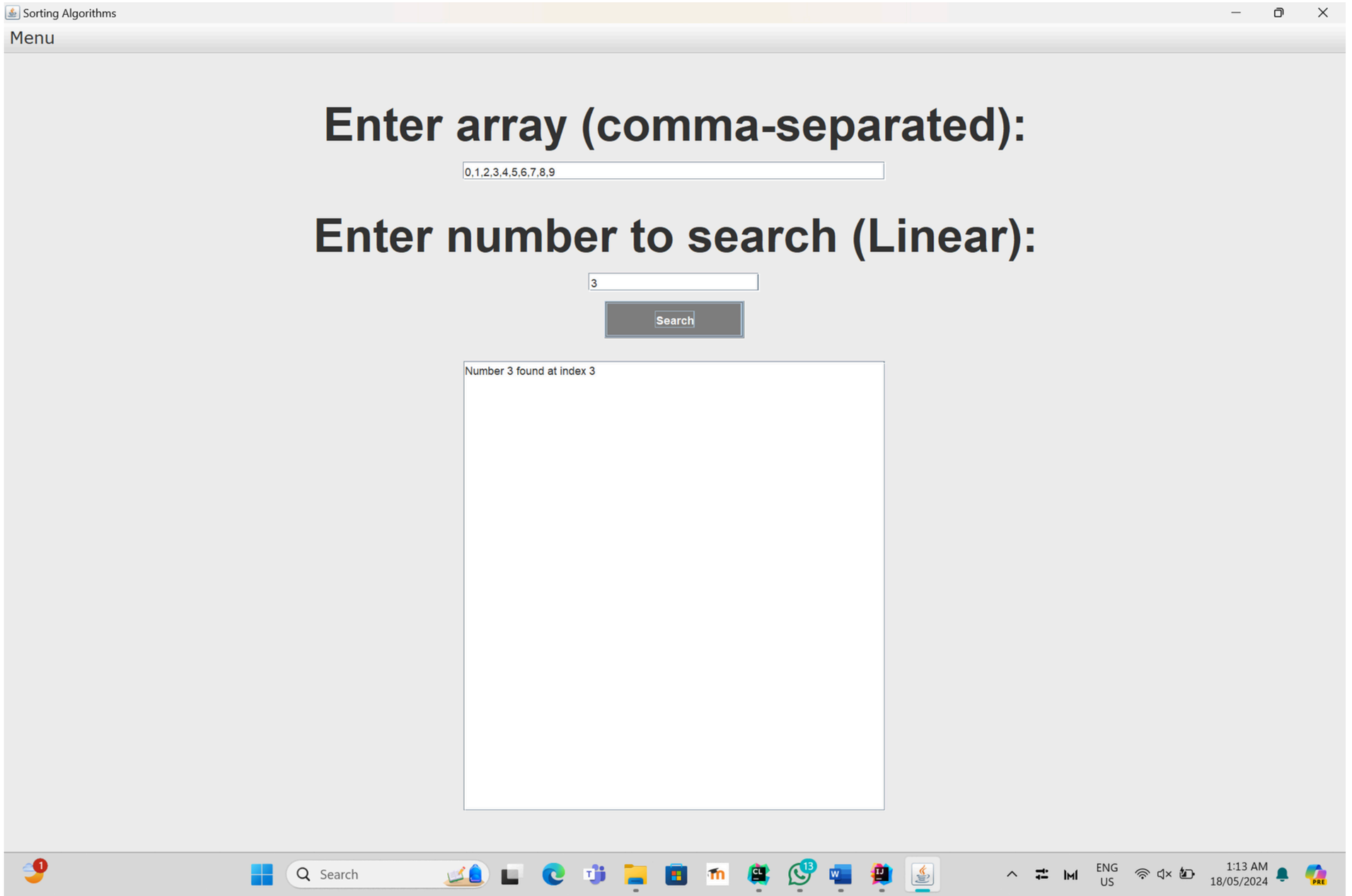
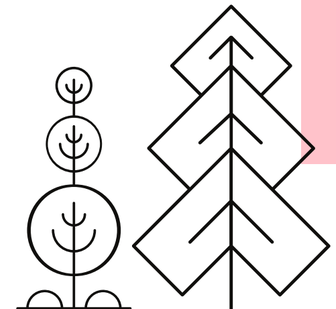
BINARY SEARCH:

Search for an existing element in the array after entering it in order in the cell at the top using the binary search method.



LINEAR SEARCH:

Search for an existing element in the array after entering it in order in the cell at the top using the linear search method.



Thank You