| **Activity No. 7.1** | |
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| **Sorting Algorithms** | |
| **Course Code:** CPE010 | **Program:** Computer Engineering |
| **Course Title:** Data Structures and Algorithms | **Date Performed:10/16/2024** |
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| **6. Database Output** | |
| **Table 7.1**   | **Code + Console Screenshot** |  | | --- | --- | | **Observations** | **i constructed a random vector that produces random numbers that is not in order and the number should be not more than 1000 and chose 100 numbers only to display on array** |   **Table 7.2**   | **Code + Console Screenshot** |  | | --- | --- | | **Observations** | **here i add the program for bubblesort and it made the array sort itself from the lowest number to the highest number in order from 1 to 1000.** |   **Table 7.3**   | **Code + Console Screenshot** |  | | --- | --- | | **Observations** | **in this way it sorted the array by finding the smallest value in the array and putting it first and it continues until it sorted everything in the array in the right place.** |   **Table 7.4**   | **Code + Console Screenshot** |  | | --- | --- | | **Observations** | **in insertionsort it also sorted the array to be in order of 0 to 1000 it used a method that it look if the array beside it is greater or lower thus it sorts itself that way.** | | |
| **7. Supplementary Activity** | |
| | Output Console Showing Sorted Array | Manual Count | Count Result of Algorithm | | --- | --- | --- | |  | Candidate 1 : 17  Candidate 2 : 23  Candidate 3 : 18  Candidate 4 : 20  Candidate 5 : 22 |  |   the program i develop is effective so far in counting the vote but when real data is used it should have accuracy because it counts what’s inside the array each and every number but if theres a single vote that is not from the choices i think the code would make another candidate or would not count the vote because it does not see where is the candidate for the vote i did not try it yet so i still don’t know | |
| **8. Conclusion** | |
| in conclusion in sorting random array in order of number or letter there would be four ways it depends on what the user need and the type of data that they would use in sorting smaller numbers they should use selection sort algorithm because it finds the lower type of number and place it on the first array and sort the array to find it in order but in sorting by finding the smaller number than the adjacent they should use insertion sort algorithm because it compares the number beside it and places the smaller number first and the larger should be compared to the next number in the array if its larger or smaller in value and it will repeat until it sorted till the last value. | |
| **9. Assessment Rubric** | |
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