Bubble Sort

Bubble Sort is the simplest sorting algorithm that works by repeatedly swapping the adjacent elements if they are in wrong order. The pass through the list is repeated until the list is sorted.

This is an inefficient sort as it has to loop through all the elements multiple times. It takes O(n^2) time to completely sort the array.

Text

Description automatically generated with medium confidence

1. #include <stdio.h>
3. **int** main()
4. {
5. **int** arr[100], n, i, j, temp;
7. printf("Enter number of elements\n");
8. scanf("%d", &n);
10. printf("Enter %d integers\n", n);
12. **for** (i = 0; i < n; i++)
13. scanf("%d", &arr[i]);
15. **for** (i = 0 ; i < n - 1; i++)
16. {
17. **for** (j = 0 ; j < n - i - 1; j++)
18. {
19. **if** (arr[j] > arr[j+1])
20. {
21. temp = arr[j];
22. arr[j] = arr[j+1];
23. arr[j+1] = temp;
24. }
25. }
26. }
28. printf("Sorted list in ascending order:\n");
30. **for** (i = 0; i < n; i++)
31. printf("%d\n", arr[i]);
33. **return** 0;
34. }</stdio.h>