Report Lab 10

Employee Salary Sorting Using Bubble Sort

Introduction

This project implements the **Bubble Sort algorithm** to sort employee salary data stored in an array. The sorted data is required for accurate payroll processing and reporting. Bubble Sort is a simple comparison-based sorting algorithm suitable for small datasets.

Objective

The main objectives of this project are:

- To store employee salaries in an array
- To sort salary data in ascending order
- To demonstrate the working of the Bubble Sort algorithm
- To produce sorted payroll-ready salary data

Data Structure Used

Array

- Fixed-size array of integers
- Stores salary values of permanent employees
- Allows sequential access and sorting

Algorithm Used

Bubble Sort Algorithm

- Repeatedly compares adjacent elements
- Swaps them if they are in the wrong order
- Largest values move to the end in each pass
- Continues until the array is fully sorted

Algorithm Steps

1. Input salary values into an array
2. Traverse the array multiple times
3. Compare adjacent elements
4. Swap if the current element is greater than the next
5. Display the sorted salary list

	Input Salaries	Expected Output
1	50000 30000 40000 60000 45000 70000 35000 80000 55000 65000	30000 35000 40000 45000 50000 55000 60000 65000 70000 80000
2	10000 20000 15000 18000 12000 30000 25000 22000 27000 16000	10000 12000 15000 16000 18000 20000 22000 25000 27000 30000
3	90000 85000 80000 75000 70000 65000 60000 55000 50000 45000	45000 50000 55000 60000 65000 70000 75000 80000 85000 90000

Conclusion

This project successfully demonstrates sorting employee salary data using the Bubble Sort algorithm. The implementation fulfills payroll requirements by producing salaries in ascending order and reinforces understanding of basic sorting techniques in data structures and algorithms.