

Assignment 5 Part 1

Program Output:

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/home/one1/git/COIS2040/Assignment5/cmake-build-debug/Assignment5
Martin Goal-keeper, ID: 777777777, Phone: 888-666-8888, Salary: 86000
Travis Programmer, ID: 555446666, Phone: 666-666-6666, Salary: 76000
Jan Doe, ID: 444444444, Phone: 333-333-3333, Salary: 75000
Iron Ironman, ID: 444444443, Phone: 828-888-8888, Salary: 73000
John Doe, ID: 555555555, Phone: 333-333-3333, Salary: 65000
John Hardworker, ID: 888888888, Phone: 888-888-8888, Salary: 55000
Carpenter Wood, ID: 333556666, Phone: 222-222-2222, Salary: 40000

Employee with ID: 444444444 deleted.

Martin Goal-keeper, ID: 777777777, Phone: 888-666-8888, Salary: 86000
Travis Programmer, ID: 555446666, Phone: 666-666-6666, Salary: 76000
Iron Ironman, ID: 444444443, Phone: 828-888-8888, Salary: 73000
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Carpenter Wood, ID: 333556666, Phone: 222-222-2222, Salary: 40000

Process finished with exit code 0
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Test Cases:

Test Case	Description	Input Data	Expected Output	Results
01	Insert employee into an empty list	John, Doe, 123-456-7890, 11111111, 50000	Employee inserted as head	Passed!
02	Insert the employee with the highest salary	Jane, Smith, 234-567-8901, 222222 90000	Employee becomes new head	Passed!
03	Insert the employee with the lowest salary	Bob, Brown, 345-678-9012, 333333333, 20000	The employee was inserted at the end of the list.	Passed!

04	Insert an employee with a middle salary	Alice, Johnson, 456-789-0123, 444444444, 60000	The employee is inserted in the correct sorted position.	Passed!
05	Delete employee by valid ID (head)	ID: 222222222	Employee deleted, next employee becomes head.	Passed!
06	Delete employee by valid ID (middle node)	ID: 444444444	Employee deleted	Passed!
07	Delete employee by valid ID (tail node)	ID: 333333333	Employee deleted, previous node's next pointer becomes null.	Passed!
08	Delete employee by non-existing ID	ID: 999999999	Output: "Employee not found." No change to the list.	Passed!
09	Read employees from a valid "EmployeeList.txt"	The file contains correctly formatted employee records	Employees correctly read and inserted into a sorted list.	Passed!
10	Handle a non-existent file	Rename/delete "EmployeeList.txt"	Output: "Error: Input file could not be opened." Program terminates.	Passed!
11	Handle an empty file	Empty "EmployeeList.txt"	No employees inserted from file; existing list remains unchanged.	Passed!
13	Display list after multiple insertions/deletions	Multiple operations as above	List correctly displayed in descending salary order.	Passed!
14	Insert employee with duplicate ID	John, White, 567-890-1234, 111111111, 55000 (Duplicate ID)	Employee inserted	Passed!
15	Insert employee with negative salary (edge case)	Sam, Green, 678-901-2345, 555555555, -10000	Employee inserted	Passed!