



ORGANIZATION HIERARCHY MANAGER

DEPARTMENT OF COMPUTER SCIENCE, UET LAHORE

Problem Statement:

Modern organizations face significant challenges in managing hierarchical employee structures, reporting chains, and departmental workflows as they grow in size and complexity. Traditional methods, such as spreadsheets and manual record-keeping, are not only inefficient but also prone to errors and lack scalability. These limitations hinder the ability to visualize organizational hierarchies, ensure accurate reporting structures, efficiently search for employees, and facilitate seamless employee transfers across departments.

There is a critical need for a robust, scalable, and efficient software solution to address these challenges and enhance organizational workflow management.

Proposed Solution:

- Develop a system using tree-based data structures to manage organizational hierarchies effectively.
- Allow the addition, removal, and editing of employee details while preserving hierarchical relationships.
- Provide a clear and visual representation of reporting chains to streamline workflows.
- Implement efficient search functionality (BFS/DFS) to locate employees based on name, role, or ID.
- Facilitate role-based employee transfers between departments while maintaining organizational integrity.
- Enable the listing of all subordinates under a specific employee for better reporting and management insights.

Technologies Used:



C#



.NET Framework

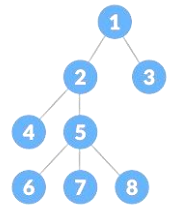


Visual Studio

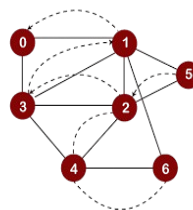
Data Structured Used:



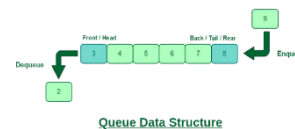
Linked List



Trees



DFS



Queue



BST

Conclusion:

The Organizational Hierarchy Management System efficiently addresses the challenges of managing employee hierarchies in growing organizations. By leveraging tree-based data structures, the system ensures streamlined operations, accurate reporting chains, and scalable solutions, enhancing organizational efficiency and decision-making.