

Assembly Project 2024

Title:

Interactive Queue Visualizer

Idea:

The system employs a digital queue data structure with interactive elements, providing students with a visual representation of how queues function. Users can actively participate in the queuing process, gaining practical insights into the principles of First-In-First-Out (FIFO) structures.

The project aims to make learning about data structures enjoyable and accessible, Furthermore, the intention is to later **expand the scope to incorporate various other data structures.** This expansion would **transform the project into a foundational educational program** catering to children and students who prefer visual learning experiences.

Tools and Additional Libraries:

The team has chosen to implement the Interactive Queue Data Structure without the use of external libraries, emphasizing a purist approach to teaching the core concepts of queue structures. The project is developed using assembly language within the Turbo Assembler program, allowing for precise control over the low-level operations of the queue.

By opting for assembly language and avoiding additional libraries, the team ensures that students get a comprehensive understanding of how the Interactive Queue Data Structure functions at the lowest level. This decision aligns with the educational goal of providing a direct and unobstructed view of the underlying data structure principles.

Team Members:

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