Summary of Updates Based on Feedback

Following the feedback received, the assignment has been improved in several key areas to enhance clarity and overall quality:

Code Documentation:

Detailed comments have been inserted throughout the code, especially in the critical sections, to explain the logic behind various implementations. This will assist others in easily grasping the functionality and purpose of the code.

Lamport Clock Implementation:

The Lamport clock algorithm has been successfully incorporated into the system, aligning with the project specifications. This addition ensures that events across distributed systems are properly synchronized, maintaining the correct causal order.

Enhanced Testing:

A range of tests has been conducted to ensure robust functionality:

- **Unit Tests:** Each component has undergone thorough testing to ensure individual correctness.
- **Edge Case Tests:** The system has been tested under rare and extreme scenarios, such as network failures and boundary conditions.
- **Integration Tests:** Various components have been tested in combination to verify their smooth interaction and correct overall functionality.

Design and Documentation Improvements:

A visual design sketch illustrating the architecture and workflow of the distributed system has been created and uploaded, offering a clearer perspective on how different system components interact.

- The README file has been updated to include:
    - Step-by-step guidance for compiling and running the code.
    - Information on environment setup, including necessary dependencies and configuration instructions.

Implementation Clarifications:

Additional explanations regarding the system's implementation have been added to the README. These details clarify the interaction between system components and provide more context for the design choices made.