Protocol

Development Process

The design of the Monster Trading Cards Game server involved iterative updates. Key functions were added, and unnecessary ones removed. The server handles requests through a TCP socket and uses threading to process multiple requests efficiently.

Decisions on Unit Tests

Initially skeptical about the value of unit tests, the project's progression highlighted their critical role in ensuring robust and reliable code. The tests facilitated the identification of edge cases and potential bugs that could have undermined the server's functionality.

Test classes were implemented for the following components:

- User Registration and Login
- Package Management
- Transaction Handling
- Card Collection and Deck Configuration
- Battle Logic
- Database Interactions
- Request Parsing and Response Generation

Tracked Time

The project required a significant time investment, detailed as follows:

- Server setup and threading configuration: 20 hours
- Database configuration and connection: 15 hours
- Class creation within the core and utility packages: 15 hours for 15 classes
- Code debugging and optimization: 10 hours
- Development of project-wide classes and integration: 20 hours
- Implementation and execution of unit tests: 10 hours

- Error handling and exception resolution: 5 hours
- Documentation and protocol writing: 1 hour

In total, approximately 96 hours were dedicated to the project

Reflection and Outlook

The project served as a valuable learning experience, emphasizing the importance of thorough testing and meticulous design. It also underscored the need for continuous integration and deployment practices, which will be considered for future projects. Moving forward, the intention is to incorporate automated testing tools and explore advanced networking concepts to further enhance the server's capabilities.