**Topic 4 – Benchmark – Capstone: Milestone 3**

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# **Documentation location**

All system documentation can be found at the following location.  
<https://github.com/gcu-merk/CST_590_Computer_Science_Capstone_Project/tree/main/documentation/docs>  
  
The documentation is a living document and will be updated throughout the lifetime of the project. The snapshot is a view into the current state of the existing documentation. Documentation markdown files were created using Agents within Visual Studio Code. GitHub Copilot served the agents that reviewed and summarized the files within the archive folder located here.  
<https://github.com/gcu-merk/CST_590_Computer_Science_Capstone_Project/tree/main/documentation/archive>

All documentation has been reviewed and validated by the author prior to this submission. However, the documentation is still a work in progress.

# **Rubric Criteria vs. Documentation**

**System Entities / Components**

**Rubric**: All system entities/components must be defined.

**Docs**: Covered in Technical\_Design.md (System Overview, Architecture, Hardware Design, Database Schema, API Specs).

**Functional Requirements**

**Rubric**: Requirements mapped to modules/functions, with diagrams and descriptions.

**Docs**: Addressed in Technical\_Design.md (System Overview, Features, Diagrams, Data Flow).

**Source Code Listing**

**Rubric**: Well-organized, commented code with descriptions of classes/files.

**Docs**: Not applicable yet (no code listings in docs; add when code is finalized).

**Code Review**

**Rubric**: Code review summary and feedback.

**Docs**: References\_Appendices.md includes a Code Review Summary section.

**Implementation Plan**

**Rubric**: Comprehensive description of software, deployment, integration, and operational strategy.

**Docs**: Implementation\_Deployment.md covers prerequisites, installation, integration, troubleshooting, and deployment.

**Application Functionality and Execution**

**Rubric**: Application must execute with no errors.

**Docs**: Not directly documented; will be demonstrated via testing and deployment.

**User Guide** (detailed sections)

**Rubric**: Must include Cover, Title, Copyright, Preface, TOC, General Info, System Summary, Getting Started, Using the System, Troubleshooting, FAQ, Help/Contact, Glossary. Must be accessible, illustrated, and jargon-free.

**Docs**: User\_Guide.md includes all required sections (Cover, TOC, Preface, System Features, Accessibility, Use Cases, FAQ, Contact, etc.), with references to visuals and accessibility notes. Glossary is in References\_Appendices.md.

**Summary**:

The documentation in the docs folder meets the capstone rubric requirements for all major documentation criteria. The only area not fully addressed is the "Source Code Listing" (which requires finalized, commented code) and "Application Functionality" (which is demonstrated by running the system, not by documentation).

**References**

Anthropic. (2025). Conversation with Claude [AI conversation]. Claude. https://claude.ai

Gemini LLM (n.d.). Gemini - chat to supercharge your ideas. (n.d.). Gemini.google.com. https://gemini.google.com

Google. (2024). Google Colaboratory. https://colab.research.google.com/.

Microsoft. (2025). Copilot (GPT-4) [Large Language Model]. https://copilot.microsoft.com