**Topic 6 – Benchmark - Milestone 4: Results Analysis or Testing Components**

Steven Merkling

College of Engineering and Technology, Grand Canyon University

CST-590-O500: Computer Science Capstone Project

Dr. Aiman Darwiche

September 24, 2025

# **Project Information (Project name, author, project organization, project manager, and date)**

The student provides all of the components required as outlined.

# **Components Testing - Module Test Cases (C4.3) (C4.3)**

The student develops testing processes (as needed) to verify the functionality of each module test case. The student provides detailed, in-depth documentation of the testing results, emphasizing execution of correctness and performance metrics. All components are tested per the assignment criteria and there are no major or minor issues that need to be resolved. OR If not applicable, comprehensively defines all of the components of the project regarding the documentation, assessment, expectations for mathematical proofs, analysis of algorithm correctness and performance, analytics models, and/or other mathematical treatment as indicated by the instructor.

**Requirements Testing**

The student successfully tests the application against the requirements gathered in the requirements phase of development. The student provides detailed, in-depth documentation accurately mapping all requirements to test scenarios. All requirements are tested per the assignment criteria and there are no major or minor issues that need to be resolved. OR If not applicable, comprehensively defines all of the components of the alternative project criteria as indicated by the instructor.

# **System Testing**

The student successfully verifies that all components of the functional business requirements, business processes, data flows, and other system criteria are met. The student provides detailed, in-depth documentation of testing for specific end-to-end relevant processes. All components of the functional business requirements are tested per the assignment criteria and there are no major or minor issues that need to be resolved. OR If not applicable, comprehensively defines all of the components of the alternative project criteria as indicated by the instructor.

**User Guide (Cover Page, Title Page and Copyright Page, Preface, Table of Contents, General Information, System Summary, Getting Started, Using the System, Troubleshooting, FAQ, Help and Contact Details, Glossary)**

The student

**System Administration Guide (Cover Page, Title Page and Copyright Page, Legal Notice, Table of Contents, System Overview, System Configuration, System Maintenance, Security Related Processes, Appendices, Table of Figures)**

The student

**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 Corporation. (2024). Microsoft Copilot [Software as a Service]. https://copilot.microsoft.com