CIS 4250

IAR #5
Sprint 3

Software Design V
Instructor: Prof. S. Scott

Q1. Student Name

Rashi Mathur

Q2. Student ID:

1125349

Q3. Associated Team Deliverable:

Initial System Design Design and Product Backlog Creation

Q4. Team #:

Section 2, Group 8

Q5. What were the main technical or methodological knowledge, skills and/or abilities (KSAs) that were required to complete this team deliverable? What prior courses or experiences (e.g. co-op, group project, etc.) from your Software Engineering degree did you draw on for these KSAs?
(bulleted list is preferred):

Main technical/methodological KSAs:

- Design Principles
- Ability to understand the codebase
- Typescript
- Creating project backlog
- Estimating task time
- Documentation

The previous courses I used to draw on for these KSAs were:

- CIS*3250 (Software Design 3)
- CIS*3260 (Software Design 4)
- CIS*3750 (System Analysis and Design in Applications)
- CIS*3760 (Software Engineering)
- CIS*4300 (Human Computer Interaction)
- Previous internship experience

Q6. What was your existing level of experience with these topics/skills before your team began working on this deliverable? (1-2 sentences):

Before working on this deliverable, I had experience with GitLab issue tracking, sprint planning, and technical documentation. I was also familiar with

performance optimization concepts, but I hadn't directly worked on refactoring code to reduce memory usage in a structured sprint before

Q7. Comment on your individual KSAs learning during this deliverable, and what additional learning may be needed to understand or be more competent with these topics/tasks in the future?

- During this deliverable, I enhanced my project management skills by creating and managing GitLab issues, ensuring tasks were well-defined with proper acceptance criteria. Additionally, I refined my research skills while investigating optimization techniques for reducing memory usage, even though the related story was ultimately pulled from the sprint. I also improved my presentation skills by summarizing our sprint progress in a clear and structured manner.
- To further develop my expertise, I would benefit from deeper hands-on experience with performance optimization techniques, particularly in identifying memory bottlenecks and implementing refactoring strategies. Additionally, refining my ability to anticipate potential blockers earlier in the sprint planning process could help improve overall efficiency.

Q8. What specific contributions did you make to this team deliverable? This should include technical or project management contributions.

For this deliverable, I contributed by:

- Creating and refining GitLab issues with clear acceptance criteria and definition of done.
- Conducting research on memory optimization techniques relevant to the pulled tech story.
- Preparing and delivering the final sprint presentation to summarize team progress.
- Collaborating on sprint documentation to ensure accurate tracking of completed and deferred tasks.

Q9. With whom did you collaborate for any of the above contributions (be specific – saying "all team members" is not sufficient. State which parts you worked on with whom)?

- Worked with Jake and Andrew on GitLab issue creation and refinement to ensure alignment with the project goals.

- Researched memory optimization techniques before the story was pulled and decided with to collaborated with the team to make that decision.
- Worked with Jake on finalizing the sprint presentation and sprint documentation.

Q10. Comment on how well you managed your time over the time period allocated in the Course timetable to this team deliverable (i.e. the time between the prior team deliverable to this team deliverable).

I managed my time effectively by maintaining consistent progress on GitLab issue tracking and sprint documentation. I balanced research and presentation preparation while ensuring that key sprint tasks were well-organized. However, since the memory optimization story was removed mid-sprint, I had to adjust my focus accordingly. In the future, I could improve my efficiency by allocating contingency time for research tasks that may not immediately lead to implementation.