

CIS 4250 – Software Design V
Instructor: Prof. S. Scott
Individual Accountability Report (IAR) Template

Note. Refer to the Project Manual for detailed instructions for IAR submissions.

Individual Accountability Report (IAR) Template

The following questions **MUST** be included and answered completely for each submitted IAR.

IAR must be submitted one of the following file formats: text or PDF.

Q1. Student Name: Naza Anyaegbunam

Q2. Student ID: 1158144

Q3. Associated Team Deliverable: Initial System Design + Backlog Creation

Q4. Team #: Group 6 Section 2

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):

- ☐ Structuring backend logic with the MVC architecture.
- ☐ Designing React hooks to connect components with backend endpoints.
- ☐ Understanding the system and being able to make sense out of it
- ☐ Creating UML diagrams to represent system architecture and component interactions.
- ☐ Translating technical requirements into clear documentation.
- ☐ Coordinating tasks with team members and integrating components effectively.
- ☐ Using GitHub for version control and code management.
- ☐ **CIS*3260:** Applied system design principles and UML diagramming, as well as user stories and tech stories
- ☐ **CIS*2170+CIS*4300:** Implemented user-centric functionality using hooks.
- ☐ **CIS*3530:** Gained experience with database design and modelling
- ☐ **Co-op Placements:** Collaborated on scalable web applications and integrated real-time features.
- ☐ **Group Projects:** Designed end-to-end solutions and managed full-stack integrations.

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

Before starting this deliverable, I had beginner to intermediate experience with backend development, including creating RESTful APIs using Node.js and Express.js, managing databases with MongoDB, and implementing real-time communication with Socket.io. I was also familiar with system design and creating UML diagrams from prior coursework, although applying them to a real-world project was a new challenge. Additionally, I had some experience crafting user stories to align technical development with user needs, which helped our team focus on delivering practical and user-centric solutions. However, integrating React hooks with backend systems and refining the diagrams to represent both technical and user requirements was a learning experience for me.

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?

Working on the system model design and design recommendations for this deliverable was a great learning experience. Creating the system design models, especially the UML diagrams, helped me better understand how to analyze and represent the relationships between different components of the system. This process allowed me to identify gaps in the existing design and propose improvements in a clear and structured way. When I worked on the design recommendations, I focused on practical changes, like improving database relationships, refining backend logic, and ensuring the system aligned with user needs. These tasks helped me connect theoretical design concepts with real-world applications and gave me a clearer picture of how to approach system workflows. That said, I realize there's still room for growth. For example, I'd like to get better at using advanced design methodologies. I also want to explore tools that automate parts of the system modeling process to make it more efficient. Finally, improving my ability to make detailed, actionable design recommendations for larger and more complex systems is something I'd like to focus on moving forward.

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

- I worked on creating the system design model, specifically the backend
- I also worked on the design recommendations for the system
- I assisted in working on the project backlog (user stories)
- The proposed system overview
- Updated weights + demos for GitLab issues

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 on the design recommendations with Jake
- Worked on the backend of the system design model while Eddie worked on the frontend of the system design model
- Worked on the user stories alongside Jake, Eddie, Dawoud and Ike
- Worked on the proposed system overview alongside Eddie, Ike, Jake, Dawoud
- Updated weights + demos for Gitlab issues along with Jake, Ike, Eddie, Dawoud

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).

Over the time period allocated for this team deliverable, I managed my time very effectively. I ensured that I started early on key tasks, such as the system model design and design recommendations, which allowed me to make steady progress without feeling rushed. I prioritized important components like the UML diagrams and design improvements, giving myself enough time to review and refine them to ensure they aligned with the project goals. By staying organized and maintaining a clear plan, I was able to balance this deliverable with other commitments seamlessly. Overall, I feel that I made the most of the allocated time and contributed to the deliverable in a focused and efficient manner. I think as a team, we communicated properly this sprint, and made sure everyone knew of their tasks and were allocated accordingly