**Sprint 3 / Final Retrospective:**

10 questions

* + Based on responses by **6** students (as of 4/29/24 @ 9:30pm):

1. **What worked best during this last sprint? (4/4-4/22)**

> During this last sprint, what worked best was our leadership and collaborative efforts. Particularly, our bi-weekly team meetings became more productive, ensuring our preparedness for the next class, maintaining momentum, and focusing on incorporating stakeholder feedback. Additionally, our collaboration skills were strengthened through constant contact and troubleshooting via Discord, as well as engaging in one-on-one sessions to review project components. These efforts were instrumental in keeping us focused on project essentials, aligning with objectives, and addressing emerging challenges. Scrum Master Cheyenne's coordination of administrative tasks and direct approach to problem-solving played a pivotal role in our achievements.

1. **What didn't work?**

> We faced familiar challenges with task delegation, communication styles, and time management, resulting in imbalances in workload and contributions. One underlying issue was the hesitancy of some team members to take on tasks and assume responsibility, resulting in ineffective delegation. Furthermore, incomplete task assignments in Trello led to an overwhelming backlog and an uneven distribution of leadership. Implementing daily status reports in Discord could have helped address these issues proactively. Moreover, setting overly ambitious goals without considering our timeframe and available resources exacerbated our challenges. These insights highlight the importance of building confidence among team members and establishing a transparent and inclusive task delegation process.

1. **What would you like to keep the same if you were to do another project with the same team?**

> If we were to embark on another project with the same team, we'd choose to stick with Discord as our primary communication platform and maintain our current meeting frequency. The current schedule proved beneficial in keeping us on track, particularly for preparing stakeholder demos and collaborating on class assignments. We'd also prefer to keep the same team members in their current roles, as they all demonstrated excellent performance. Having an efficient Scrum Master, like Cheyenne, would be ideal for overseeing details, milestones, and providing guidance throughout the project.

1. **What would you do differently?**

> If we had the opportunity to improve, we'd prioritize enhancing code comments, as they are important for the longevity of a program, increase collaborative programming sessions, and refine our GitHub pull request review system. While our communication is steadily improving, we would aim to enhance involvement with daily check-ins, seeking professor assistance, and suggesting project-relevant lecture topics. We also recognize the need for clearer task deadlines and delegation, as well as setting aside dedicated time for testing. If we were to do another project with the same team, we'd maintain focus on communication and ensure active sharing of work among team members.

1. **What kind of resources did we require? (throughout the whole course)**

> Throughout the course, we utilized a diverse array of resources to support our project. Mostly, we relied on individual repositories, collaboration among team members, continuous research efforts, and valuable guidance from our stakeholders. Additionally, essential tools like Open Liberty, GitHub, PostgreSQL, Docker, and LinuxONE played pivotal roles in facilitating our development efforts. Many team members took initiative to gain proficiency in Open Liberty, React, CORS, and website APIs, and database architecture, highlighting the importance of time allocated for training and learning. Resources such as GitHub for version control, an IDE of our choice for coding, Open Liberty for server-side development, Trello for task management, and Discord for communication were instrumental in streamlining our progress. Moreover, Docker was required for ensuring proper database utilization, but additional training on its usage would have been advantageous. Enhanced clarity and training on tools like Open Liberty/Maven, React, and Node.js would have been beneficial to the team. Furthermore, integrating better project management software could have improved task and deadline organization.

1. **What resources did we not have which may have helped our progress? ex. Amazon Cloud 9 access, etc.**

> In our project, we effectively made use of all necessary resources, but additional time was a major resource that we lacked. Additionally, earlier access to a cloud-based development environment, such as Amazon’s AWS Cloud 9, could have provided flexibility in our development process by addressing server issues and incorporating Open Liberty CORS to mitigate browser-related challenges. Furthermore, a comprehensive lesson on React functionality would have been beneficial. However, the lack of active personnel executing tasks may have also hindered our overall progress.

1. **a.) What role did everyone play?**

**b.) How well did these roles work out?**

> Throughout the project, active participation in status reports and meetings kept everyone informed and aligned. Cheyenne's re-election as Scrum Master for the last Spring highlighted her exceptional soft skills, ensuring project focus. Effective status report presentations in Sprint 3 by Oscar, Catherine, Gabriella, Adam, and Ruth, along with code module presentations by Catherine, Oscar, and John, underscored the team's preparedness and contribution. Notably, Cheyenne's leadership, Oscar's backend optimization, Catherine’s front-end expertise, Kyle’s test plans, and John's database resource setup stood out. The designated roles, including frontend, backend, and database responsibilities, effectively utilized everyone's strengths, contributing to the project's success. Although, while everyone played their roles well, opportunities for enhancing equal participation and support for all team members were identified.

1. **In the future, what type of task delegation do you think would be successful? ex. volunteers, list-based, etc.**

> For better task delegation in the future, we suggest a mix of strategies. Firstly, individuals with appropriate skills can volunteer for coding tasks, ensuring efficiency and competency. Additionally, for recurring tasks like status reports, creating a semester-long list, organized alphabetically and skipping those who have already completed tasks, could streamline the process and ensure fair participation. To enhance accountability and encourage learning, a "buddy" system, where pairs switch tasks each Sprint, could be implemented. It’s essential to maintain realistic expectations for class participation and prioritize task completion with the available group. Thus, transitioning towards a list-based approach for most of the tasks aims to ensure fair distribution of tasks and prevent burnout.

1. **Do you feel that we met the goal of the project? Why or why not?**

> Overall, we believe we’ve met the goal of the project. Our application successfully enables users to schedule vacations with key features such as a sign-up page, log-in page, calendar page, and a log-out button. Despite some ambitious goals not being fully met, we're proud of the solid results within the project timeline. Challenges along the way included building a strong technical knowledge base with new tools. Throughout each Sprint, we enhanced communication following Agile methodologies, becoming more comfortable addressing disagreement and staying focused on project goals.

1. **What has been your favorite topic(s) to learn about from this course/project?**

> Throughout this course, we've found databases, connecting backend and frontend components, team dynamics, design thinking, React, and Agile Development concepts like Dev Ops particularly engaging. Exploring how frontend and backend components interact has been rewarding, alongside delving into web application development and Java API conventions. Understanding the synergy among various resources, like server architecture, has also been fascinating. While our group project has presented challenges, it's been an enjoyable and valuable learning experience in effective teamwork, time management, and adaptability, skills that are universally beneficial.