CS344 Group Staryu PRL2: Sprint Retro 3

This is a summary of our final group discussion held after Sprint 3, reflecting on our progress, what we did well, areas for improvement, and a look back at how Agile guided our project to completion.

Things we did well

- **Finalizing the Project**: Sprint 3 was a milestone for our team as we delivered a fully functional and optimized traffic management simulation. We successfully integrated all key components, including user input, optimization, and tests.
- Efficient Task Division: Each team member had a clearly defined task, which allowed us to work efficiently. Nicole developed the user input interface, Nic set up tests, Brad improved traffic light management, William handled optimization, and Magdalena worked on the Agile report and presentation.
- Collaboration and Communication: Our communication continued to improve throughout the project. Regular check-ins ensured everyone was on the same page and able to contribute effectively. Open discussions about tasks and blockers helped us resolve issues quickly.
- Optimization and Performance: William's optimization work significantly improved the performance of the simulation, ensuring that it runs smoothly, even when handling a large number of cars. This was a key focus for Sprint 3, and it was successfully achieved.

Things we could have done better

More Frequent Testing: Although we were not able to fully implement CI/CD
pipeline for testing, it would have been helpful to integrate testing earlier in the
project. This would have allowed us to identify potential issues sooner, especially
with performance-related aspects.

Reflections on Agile

Agile was instrumental in guiding our workflow throughout the project. It allowed us to iterate on our ideas, improve continuously, and deliver value incrementally. Here's how Agile shaped our approach:

- **Frequent Iterations**: By breaking the project into smaller sprints, we were able to focus on delivering functional components in each sprint. This kept the project manageable and allowed us to make steady progress.
- Transparency and Accountability: Daily stand-ups and sprint reviews provided clarity on what was being worked on and helped ensure that all team members were accountable for their tasks. The structure that Agile provided made sure that everyone was aware of the project's status at all times.
- **Sprint Retrospectives**: At the end of each sprint, we held retrospectives to reflect on what went well and what could be improved. This allowed us to identify and address issues as they arose, ensuring that we were always improving our workflow.

Action items and final thoughts

Since this was our final sprint, we do not have future action items. However, as we reflect on the project, here are some final takeaways:

- **Team Collaboration**: Our communication and collaboration improved with each sprint, which led to a more efficient and cohesive team effort.
- Final Deliverables:
 - User Input Integration: A dynamic input system that allows users to modify key parameters like the number of cars.
 - Traffic Light Grouping: Organized traffic light control for easier management.
 - Performance Optimization: Improved response times and reduced lag in the simulation.
 - Agile Report and Presentation: Documentation and presentation to demonstrate our understanding and application of Agile methodologies.

In conclusion, Sprint 3 allowed us to finalize the project, achieving all our goals with the help of Agile methodologies. Our team has successfully delivered a functional and optimized traffic simulation system, meeting the objectives set at the beginning of the project.