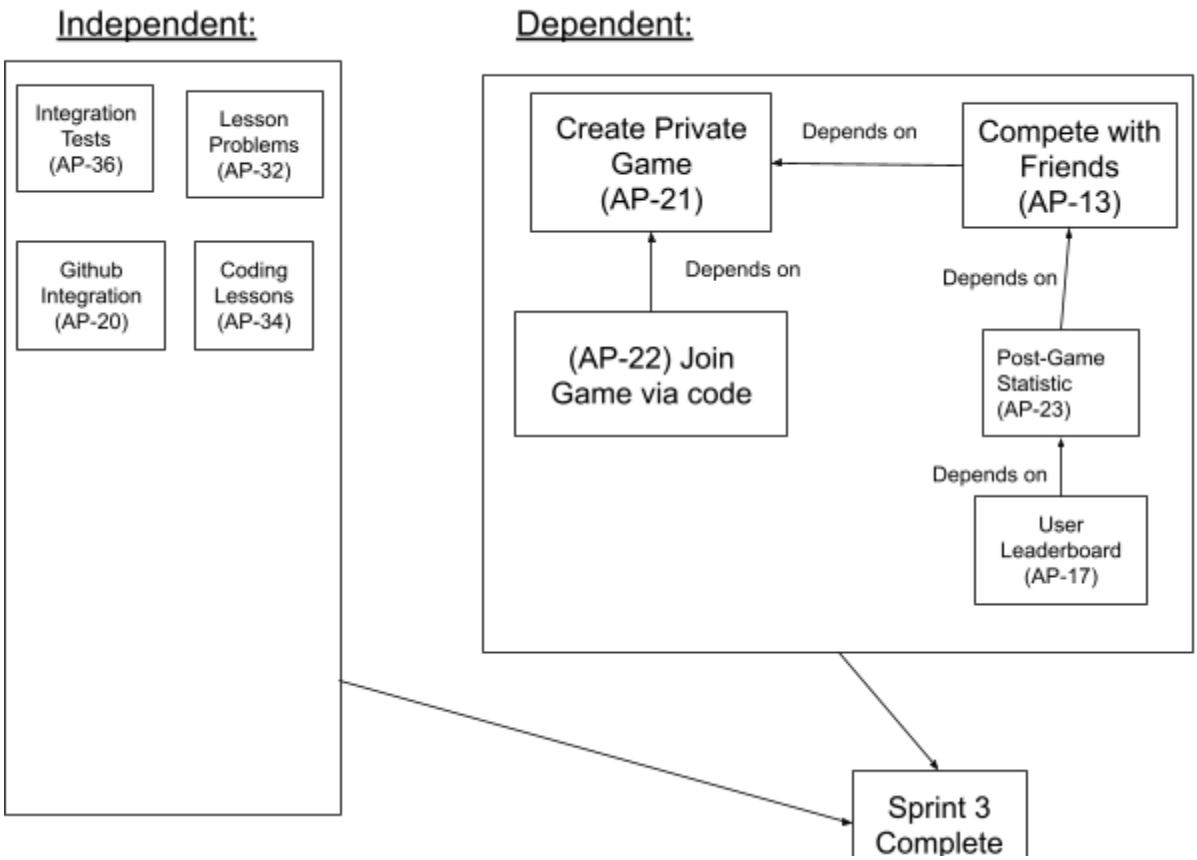

During Sprint 3, we identified key task dependencies and created a network diagram to map them out, helping us determine the critical path. Tasks reliant on specific database schemas or API endpoints were prioritized early in the sprint to reduce the risk of bottlenecks.

Strategies to Keep the Sprint on Track

To maintain momentum and prevent delays caused by dependencies, we adopted several strategies:

- **Daily Standups:** These helped surface blockers early and kept the team aligned on goals and task statuses.
- **Pair Programming for Complex Features:** This approach increased both speed and code quality for tasks with high technical complexity.
- **Early Coordination on Backend Architecture:** We scheduled meetings at the beginning of the sprint to finalize database schema requirements, enabling frontend and backend tasks to progress in parallel.

Challenge: Why We Could Not Complete AP-8

One major challenge this sprint was the incomplete delivery of **AP-8: "As a user, I want fill-in-the-blank questions during lessons so that I can test my understanding interactively."**

Despite initial progress, the task proved more complex than anticipated due to:

- **Expanded Scope:** The implementation required supporting a wide range of formats and **Complex Validation Logic:** Ensuring user input could be validated in real-time without compromising UX or data consistency required more development and testing time.
- **Integration Overhead:** Tying the interactive component into the existing lesson flow and analytics system introduced unexpected backend challenges.

Lessons Learned

- **More Accurate Story Point Estimation:** The technical complexity and scope of AP-8 were underestimated. In future sprints, we will dedicate more time to analyzing tickets—especially those involving user interactivity—before assigning story points.
- **Proactive Communication to Avoid Delays:** Although we held regular meetings, we learned the importance of surfacing technical unknowns earlier and adjusting the sprint scope if needed. Mid-sprint reassignments helped mitigate some delays, but earlier alignment would have been more effective.