Responses to the Senior Project Committees

Agile Hero: Agile Mini-game

I sincerely thank the senior project committees for their valuable feedback and suggestions. Below is our detailed response to the comments received. This letter will be added as **Appendix B** in the final report.

1. The committee suggested delivering the project using a containerised solution like Docker.

Response:

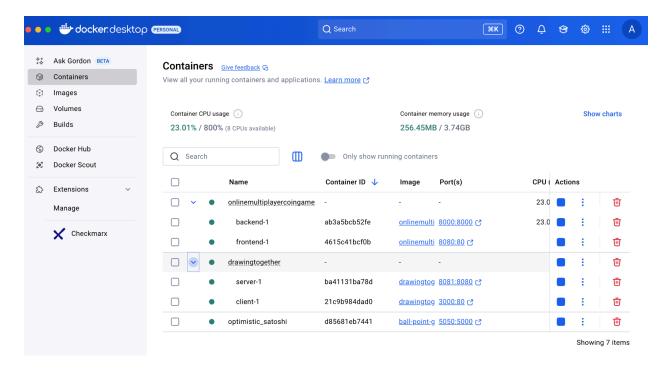
In response to this request, we have successfully containerised the **Agile Hero: Agile Mini-game**, including all three training games:

- Agile Coin Game (requires backend):
 - The backend implemented in Python (FastAPI) is containerised via a dedicated Dockerfile.
 - Frontend files are served via a simple Node.js or Python HTTP server within the container.
 - Handles WebSocket connections for real-time game synchronisation.
- Ball Point Game and Drawing Together Game:
 - Both games are frontend-only (pure HTML/CSS/JavaScript with WebSocket) and are served from the same container.
 - Game logic runs fully client-side, but real-time multiplayer is preserved via shared WebSocket channels.

To simplify deployment, we created:

• A single **Docker image** that includes all frontend assets and the backend for the Coin Game.

- A docker-compose.yml file for future scalability (e.g., separating frontend and backend).
- A full Readme.md with setup instructions, environment ports, and sample commands.



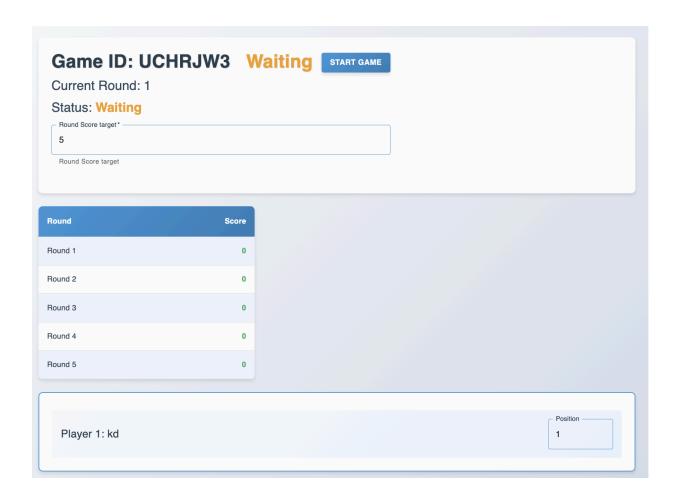
This clarification and deployment process have been added to **Section 3.7** (**Technical Architecture**) on **page 18** of the report.

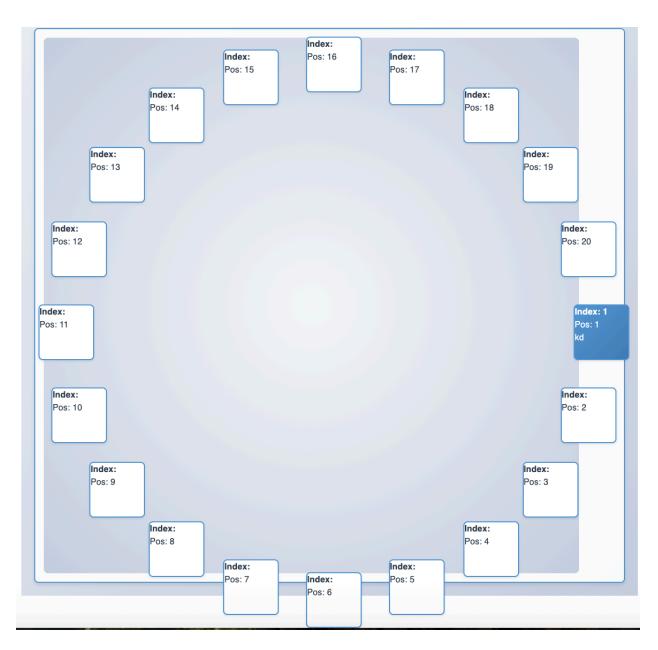
2. The committee recommended improving the user interface of the game.

Response:

We have reviewed and polished the user interface of all three mini-games. Improvements include:

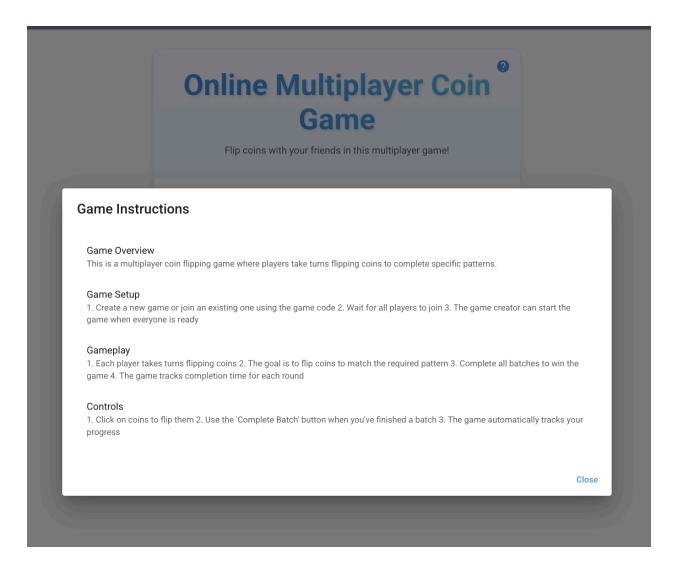
- Improved all game styles (fonts, button colours, layout),
- Larger buttons and clearer labels to improve usability,
- Improved screen instructions and visual feedback during gameplay,
- highlighted active states for better clarity.





These changes improve the game's accessibility and player experience while maintaining alignment with Agile training goals.

3. The committee suggested adding the game instructions to the web.



This screenshot shows that I added the game instructions to the web game. For example, in the main menu of the game, clicking on the little question mark in the top right corner will show the game instructions.

Once again, we are grateful to the committee for the helpful feedback. The above improvements have been implemented and documented in the final report accordingly.