**Progress Report**

**- Increment 3 -**

**Group Phaze 5**

# **1)** **Team Members**

Faith Miller:

FSUID: fmm15c

GitHub: maithfiller

Mackenzie Knight:

FSUID: mlk17

GitHub: m-knight99

Eduardo Antonini:

FSUID: ea17h

GitHub: edcorant

Katie Rombeiro:

FSUID: klr16f

GitHub: klr16f

Tristan Garcia:

FSUID: tjg16d

GitHub: tjgarcia0427

**2)** **Project Title and Description**

Phaze 5 is a multiplayer card game inspired by the famous game Phase 10. In Phaze 5, each player starts out each round with 10 cards, and has to come up with a combination of cards that satisfies the condition of their current phase. When a player is done with their phase, they may add cards to their opponents phases to lower the amount of cards in their hand. Once a player runs out of cards to put down, the round is over, and all players receive 10 brand new cards. Each player can only advance one phase per round. First player to finish all phases wins. Phaze 5 is implemented as a Web App.

**3)** **Accomplishments and overall project status during this increment**

The main accomplishment of this project iteration is successfully connecting the back-end and front-end code implementations of our project so they can work together. The back-end game implementation was completely switched from operating with keyboard input through JavaScript prompt() to taking input from a functional React Web App. We accomplished this by integrating our back-end game implementation classes into the Homepage.js file, which allowed us to use onClick event handling to call the appropriate back-end functions in the React modal handlers based on player input. We also added a significant number of helper functions into the Homepage class in order to make the game implementation code work with event handling. In this increment, we also completed all testing needed to make sure there were no issues with our game implementation.

Our project has been fully completed and consists of all features and functionality that we mentioned in the initial scope and functionality proposed. In the initial proposal, we mentioned that a fallback would be to play the game through a local host instead of online, and our game fully works on the local host. In addition, we stated that a feature of our project would be to have a visually appealing front-end and the project looks great and works perfectly. The background and buttons make the web-app a very minimal but appealing design. The game is fully functional for our full game of Phaze 5, which consists of 2 phases. We initially stated that it would have 5 phases, but a change in scope/fall back would be 2 phases, so we could spend more time on other features.

**4)** **Challenges, changes in the plan and scope of the project and things that went wrong during this increment**

One challenge our group faced at the beginning of increment 3 was our struggle to connect the front-end of our code to the back-end code of the game implementation. Through many hours of research and emails with Chris Mills, we found a way to link them and continue our progress of the project. Although all of us are still being affected by COVID-19, by not allowing us to all meet in person, everyone in the team was continuously able to meet up in ZOOM meetings to discuss issues or overall topics/progress of the project. Another problem that arose was our original plan to implement multiple modals within our code for each function. We came to realize there cannot be a modal within another modal within ReactJS. However, this wasn’t a hard fix and was fairly simple for Faith and Katie to solve. On the back-end, we had some challenges initially trying to figure out how and where to implement the code we had written in CodePen. We had a working game, but we weren’t exactly sure how to connect that to a running UI in React. Once we figured out how to use function calls to activate certain parts of our game, we ran into some issues with handling our variables and displaying an output based on the current state of the game. Continuous trial and error led to us overcoming those issues and completing the Phaze 5 game.

**5)** **Team Member Contribution for this increment**

**Faith Miller:**

1. Faith contributed to the “Accomplishments and overall project status during this increment” section of the progress report.
2. Faith contributed to the “Functional Requirements” and “Non-functional Requirements” sections of the Requirements and Design Document.
3. Faith contributed to the “Non-execution based testing” section of the Implementation and Testing Document.
4. Faith contributed to creating the modals and coding the front-end aspects of the modals, which includes all of the onclick event handling functions for every submit button. Contributed to changing the design of the homepage by fixing the background and buttons on screen. Also contributed to helping out with connecting a large amount of the game implementation connection with the front-end. Helped connect the functions created by the game-implementation team to show the hand in the modal. Helped with testing to make sure we could play an entire game. Also coded the functionality to make the game 2-6 players instead only allowing 3 players. Created the necessary functions to have 2-6 text boxes appear for player usernames based on the number of players inputted.
5. Faith edited and recorded the entire video and added in the voice overs for the final project demo.

**Mackenzie Knight:**

1. Mackenzie contributed to the “Accomplishments and overall project status during this increment” section of the Progress Report.
2. Mackenzie contributed to the “Functional Requirements” and “Non-functional Requirements” sections of the Requirements and Design Document.
3. Mackenzie wrote the “Execution-based Functional Testing” section of the Implementation and Testing Document.
4. Mackenzie contributed to all additional code needed in order to switch the game implementation code from working with keyboard input to working with event handling in the front-end React app. Functions that Mackenzie contributed to in this switch over include, but are not limited to, setGameInfo(), drawFromDeck(), drawFromDP(), checkPhase(), finalDiscard(), endOfTurn(), endOfRound(), and boardHit() within the Homepage.js file. Mackenzie individually wrote the setPlayers() function. Mackenzie also contributed with using the onClick event handler functions to call the necessary game functions based on what needed to be done with each piece of information taken in by each modal.
5. Mackenzie played the final Phaze 5 game with the other group members in order to make the final project demo. Mackenzie also contributed to explaining game play for the voice overs of the project demo in order to make the game easily understandable. Mackenzie also contributed to the “State of the Project” slide of the PowerPoint presentation designed for the video.

**Tristan Garcia**

1. Tristan contributed to the “Challenges, changes in scope of the project” section of the Progress Report.
2. Tristan contributed to the “Use Case Diagram” section of the Requirements and Design document.
3. Tristan wrote the “Platforms, ApI’s, and other technologies used” section of the Implementation and Testing Document.
4. Tristan contributed to switching over the game implementation code to the front-end UI. This involved giving feedback to the rest of the group as we went over the code together on Zoom calls, and discussing how to best implement certain pieces of the game based on certain actions in the UI.
5. Tristan contributed to the “Changes in Scope” section of the Powerpoint.

**Katie Rombeiro**

1. Within the progress report, Katie worked with Tristan to complete the “Challenges, changes in the plan and scope of the project and things that went wrong during this increment” section.
2. Within the requirements and design document, Katie contributed to the “Overview” and “Assumptions and Dependencies” sections.
3. Within the software implementation and testing document, Katie contributed to the “Execution-based Non-functional testing” section
4. Katie contributed to helping create the front-end implementation. This process involved the coding of multiple modals, functions and buttons which allowed for the connection to the game implementation. Katie also played the game a few times with her other teammates in order to find some unnoticed bugs which she sorted out with the team.
5. Within the powerpoint presentation, Katie contributed to the “General overview” slide and also participated in the video demo of the game along with her other teammates.

**Eduardo Antonini**

1. Eduardo penned the “Project Title and Description” section of the Progress Report.
2. Eduardo authored the “Class Diagram” and “Operating Environment” sections of the Requirements and Design Document.
3. Eduardo composed the “Programming” section of the Software Implementation and Testing Document.
4. Eduardo contributed, to the best of his abilities, to the process of bridging the backend and frontend portions of the program by attending all group meetings and making suggestions and technical observations to the other members working on that task, as well as general brainstorming whenever appropriate. While working with Tristan and Mackenzie, Eduardo discussed and took notes of what visual details had to be addressed by Faith and Katie -- the members responsible for the graphic interface of the program. Finally, towards the end of the development process, Eduardo was tasked with writing a generic sort function to help organize runs of cards to be displayed in each player’s boards as they completed their current phases.
5. Eduardo was in attendance of the meeting where the group played the game and recorded the project demo, and assisted with touching up the same demo.

**6) Link to video**

<https://youtu.be/09ZbNSW2sCY>