**James Troup**

**Project 2 Documentation**

Category 1: Media Requirements

The background music is very calming and simplistic. This is the same as the sound effects while pieces are moving as well. The art theme is consistent throughout with very simple colors the only part that is inconsistent is the portal icon as drawing an image is part of the requirements. We are using Roboto for our font and it is very calming and simple font. The entire game experience is drawn on the canvas, while menus are part of the html page. We didn’t use an image animation from a sprite sheet as it is not really needed for our game in its current state.

Category 2: Interaction Requirements

The player controls the red and green pieces on the board using the keyboard arrow keys. Key presses cause any piece to move in the desired key direction if there is nothing blocking said piece. Keys are mapped exclusively to arrows as the mouse is only needed to click the buttons to start, restart, or move on to the next level. Not necessary to use “key daemon” array as only one key is used per move.

Category 3: Usability requirements

Instructions are provided on the right hand side of the screen. Current state of the game is easily noticed by the player. Difficulty starts off very easy as mechanics are introduced and ramps to fairly difficult for the final level. We have a main menu, a win state, and a loss state. Our names is visible on main menu screen.

Category 4: Experience/Game Design Requirements

Overall the game is a good approximation of what was planned. We are missing one of the potentially proposed mechanics, which was pieces that move multiple spaces on one move. The game is a solo casual puzzle game and the player loses if they run out of turns on a given level. The player decisions are which way to move the pieces to reach all of the goals. There are multiple mechanics that provide layers of depth. There is definitely a learning curve to the game that once the player learns the mechanics of the game levels can be thought through fairly easily. People I have shown it to think it’s interesting and would play if there were more levels and mechanics.

Category 5: Coding

We used no outside libraries and anything confusing has been commented. We use the ES6 module pattern of having separate javascript files that we import export functionality to and from other files. We are transpiling back to ES5 to ensure that it can run on older browsers. Modified the circle sprite in class code to draw the circles in specifically grid like fashion so x and y were related to the grid rather than the canvas. For extras, we are saving the players current level to local storage so they are able to pick up where they left off; also all of the levels are being loaded in from text files.

**What went right and wrong**

I would say splitting up the tasks between us is something we did well, no one person was completely overwhelmed with what needed to be done. I also like the current state the game is in, when I first thought of the game it is relatively similar to our current product. What went wrong is again similar to project 1. We lost work time due to me having to travel home for my grandmother’s funeral and not having access to a computer to work from while home. But Beau, even with these circumstances, produced his part of the prototype very well and I was able to modify to complete out prototype. Another thing that went wrong is the structure of parts of the code base. In order to expand on certain aspects of the game other parts of the code base would need to be refactored to work correctly.

**Resources**

As of writing:

1. File loading modified from <https://medium.freecodecamp.org/javascript-from-callbacks-to-async-await-1cc090ddad99>
2. Portal image modified from <https://www.deviantart.com/texelgirl-stock/art/Portal-1-83764812>
3. Background music retrieved from <https://freesound.org/people/frankum/sounds/273300/>
4. Move sound retrieved from <https://freesound.org/people/fordps3/sounds/186669/>
5. Win sound retrieved from <https://freesound.org/people/newagesoup/sounds/348849/>
6. Loss sound retrieved from <https://freesound.org/people/Timbre/sounds/73750/>
7. Array initialization code sourced from <https://stackoverflow.com/a/966938>

**Work Distribution**

James:

* Overall game design and level building
* Level win and loss screens
* User control
* Transitioning between levels
* Move tracking and display
* Loading total turns from the level file
* Teleporter image inclusion
* Mechanic implementations

Beau:

* Title Screen
* Board
* Level file format
* External file reading
* Level loading from level file structure
* Custom font
* Screen redesigns
* Music/Sound Effects
* Instructions added to game screen

**Grades**

James: 92%

Beau: 97%

Overall Project: 92%

I would say overall the project has a nice cohesive theme and turned out pretty much exactly how I imagined it, but would it definitely benefit from having more appealing images for the pieces and additional levels. For our grades I would say they are affected by the fact that around the prototype due date I had to travel home for the weekend and lost some time. I give myself a 92% because I probably could have spent a bit more time on adding more levels and mechanics but lost some of my time to having to travel home. I give Beau a 97% because again he was able to work without any face to face time and produce something I could fairly easily jump into and modify when I returned to Rochester.