Planning for Group PAPA:

Maze Program Version 1.0

For the first milestone of this project, our goal is to initialize the game screen. This includes adding the three buttons - New Game, Reset, and Quit - displaying the 16 game pieces, and showing the grid where the pieces will eventually be placed. Only the “Quit” button should be functional at this time.

Buttons: Implement the exit action when the “Quit” button is clicked. We can use the ActionListener interface to know when the button is selected. For future reference, the “Reset” button will set the gameboard to the initial setup that is stored within GameWindow. The “New Game” button will get a new maze, and randomize the positions of the game pieces and their rotations.

Grid: The grid will be composed of 32 squares. Half of these will be the 4x4 play area in the center of the screen, and the other half will be the initial storage for tiles. We will differentiate between these two grids with the use of a variable within the grid class. Each grid will also store the win conditions, and it will inform the game if it contains both the right tile and if the tile is rotated correctly. Once all the non-storage grids contain their correct tile and rotation, the game will display a victory screen.

Tiles: The tiles will be interactive pieces that serve the game’s main purpose of completing a maze. For the first Milestone, the tiles will only exist, and will have no functionality other than being visibly displayed on the game screen. However, eventually we want the tiles to lock into a grid square, rotate, and be moved. Each tile will also have a unique ID that will inform the grid if it is in the correct location, and if all tiles are a victory screen will be displayed.

Victory Screen: The victory screen is displayed when someone “wins” the game, as decided in the grid. We have debated making the victory screen disable all functionality of the program other than new Game or quit, however we have not come to a final decision on this.

Maze Program Version 2.0

Need to fix things from Version 1. Rename file names of documents. Update UML. Don’t use tabs within the program (have to find a way to still indent). Fill in exception handlers in main. Make variables in MyTiles private. Fix headers. Squares!!! Fix color choices.

For Version 2.0:
Implement Drag and Drop to move tiles, we can do this by using an action listener that knows when a GamePiece is pressed on.

Make sure the pieces “Snap”. To do this, if over an empty grid, adjust the tile to the proper location. Otherwise, return the tile to the prior location.

Give tiles identity, easy enough to implement it in the class. We have to use JLabel to display it on each tile.

Make sure the tiles cover the grids completely, just need to make them the same size.

Need to add coordinates to both MyTiles and GamePieces, do this within their classes, as a vector. Adapt the constructors to compensate for this.

Clean up the GameWindow a bit, make it more self-documented.