ICS4U – Grid Game Rubric 2022

Coder: _____ Theme: _____ Lines of Code: _____

User Interface (Knowledge, Communication)

Level 1	Level 2	Level 3	Level 4	Level 4+
❑ Own pictures on Tic Tac Toe board	❑ Background colour, button colours, text colours changed. ❑ Instruction page ❑ Splash screen	❑ Instruction screen has picture of game. ❑ Splash screen is appealing, has game name and coder name.	❑ Consistent image choice ❑ Colour scheme used. ❑ Screens have unity: same colours/ theme/ image type used on each.	❑ Visually appealing ❑ Complex & detailed instructions ❑ Multiple pictures on instructions page.
❑ Title comments filled in	❑ Other comments in template filled in	❑ Comments added to global variables	❑ Comments added at start of every method	❑ Outstanding Comments throughout ❑ Comments before major ifs

Functionality (Application, Thinking)

	Level 1 & 2	Level 3	Level 4	Level 4+	Level 4++
Fifteen Puzzle	❑ Can swap in all four directions	❑ Can win ❑ At least 5 levels ❑ Can reset in all levels ❑ Can play again	❑ 10 levels, can reset in each ❑ Only swaps with blank ❑ Moves Counter ❑ Easier complexity is added: ○ JTextArea ○ OptionPanes ○ JPasswordField ○ Sound	❑ Parameters and Return used well. ❑ Complexity added independently. ○ Choose pieces ○ Entry of name ○ Score ○ JProgressBar	❑ Complex arrays or methods ○ 3D Array for undo ○ High scores list ○ Own game addition that adapts board ○ Save/Open old game
Peg Game	❑ Can swap in all four directions	❑ Diagonal swaps	❑ Can win ❑ Can play again ❑ Moves counter ❑ At least 5 levels ❑ Can reset in all levels	❑ Parameters and Return used well. ❑ Complexity added independently. ○ Choose pieces ○ Entry of name ○ Score ○ JProgressBar	❑ Complex arrays or methods ○ 3D Array for undo ○ High scores list ○ Own game addition that adapts board ○ Save/Open old game
Mine-sweeper	❑ Add mines works	❑ Neighbors works	❑ Open works ❑ Flags work	❑ Win Works ❑ Lose Works ❑ Reset Works ❑ Can play again ❑ Score ❑ Can unflag square	❑ Extra functionality: ○ 3D Array for undo ○ High scores list ○ Own game addition that adapts board ○ Save/Open old game
Othello	❑ Can swap right and left	❑ Can swap up and down	❑ Reset ❑ Scoring ❑ Turns flip back and forth	❑ Can swap on all 4 diagonals	❑ No errors on all 8 directions ❑ Extra functionality: ○ 3D Array for undo ○ Can predict moves ○ Own game addition that adapts board ○ Save/Open old game

Grid Game Final Submission – Checklist

Comments
- ❑ Title comments are filled in
- ❑ Other template comments filled in
- ❑ Init: //TO DO: Bring back in when you are ready to work on other screens
- ❑ Opening: //TO DO: Fill this comment in
- ❑ Instructions: //TO DO: Fill this comment in
- ❑ Settings: //TO DO: Fill this comment in
- ❑ Game Screen Top: //TO DO: Fill this comment in
- ❑ Game Screen Middle: //TO DO: Fill this comment in
- ❑ Game Screen Bottom: //TO DO: Fill this comment in
- ❑ ActionPerformed Top: //TO DO: Fill this comment in
- ❑ ActionPerformed Middle: //TO DO: Fill this comment in
- ❑ ActionPerformed Bottom: //TO DO: Fill this comment in
- ❑ Comments added before all methods (win and reset)
- ❑ Comments added before important ifs and loops

Formatting
- ❑ Own pictures on board
- ❑ Background colour changed
- ❑ Button colour changed
- ❑ Title text colour changed
- ❑ Consistent image types used throughout (including splash).
- ❑ Consistent colours used throughout

Splash Screen
- ❑ Splash screen has theme of game named (eg Pokemon Fifteen Puzzle or MineFlower)
- ❑ Splash screen has coder's name – or this appears in credits somewhere
- ❑ Splash screen has game title (eg Fifteen Puzzle)
- ❑ Splash screen has picture to fill space well

Instruction page
- ❑ Instruction page has instructions
- ❑ Instruction page has a snapshot of game
- ❑ Instruction page has multiple snapshots
- ❑ Instruction page has detailed instructions

Game Functionality
- ❑ Code runs
- ❑ Can move in all directions
- ❑ Moves counter displayed on screen
- ❑ 5 levels, progress thoughtfully
- ❑ 10 levels, progress thoughtfully
- ❑ Can win
- ❑ Can reset
- ❑ Methods used for organization
- ❑ Methods used for reusability, testing and extensibility
- ❑ Own return type, coded independently
- ❑ Own parameter, coded independently

Extra Features
- ❑ JTextArea
- ❑ OptionPanes
- ❑ JPasswordField
- ❑ Sound
- ❑ JProgressBar
- ❑ Complex OptionPanes (input or using cancel button)
- ❑ Use of settings page
- ❑ Allow entry of name, update on game screen
- ❑ Updated messages or prompts on game screen
- ❑ Multiple choices of game pieces

Very High Level of Complexity
- ❑ 3D array used for redo or undo
- ❑ High scores list
- ❑ Own pieces/functionality added to game
- ❑ Advise/predict positions
- ❑ AI functionality
- ❑ Save/Open old games