



COMP1110 -Assignment 02

Group H



Group Members

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Main Menu

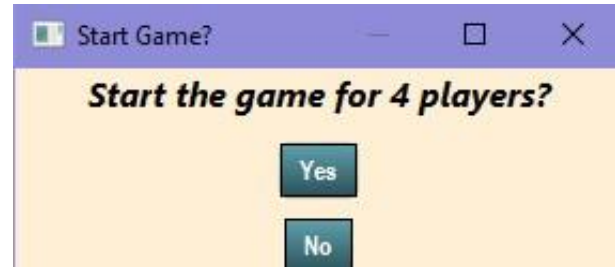
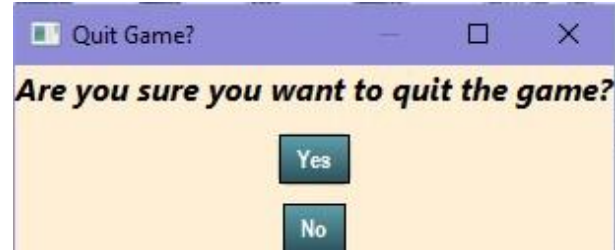
Our main menu including four function.

- Number of players drop-down choice box.
- Start game button.
- Game rules button.
- Quit button.



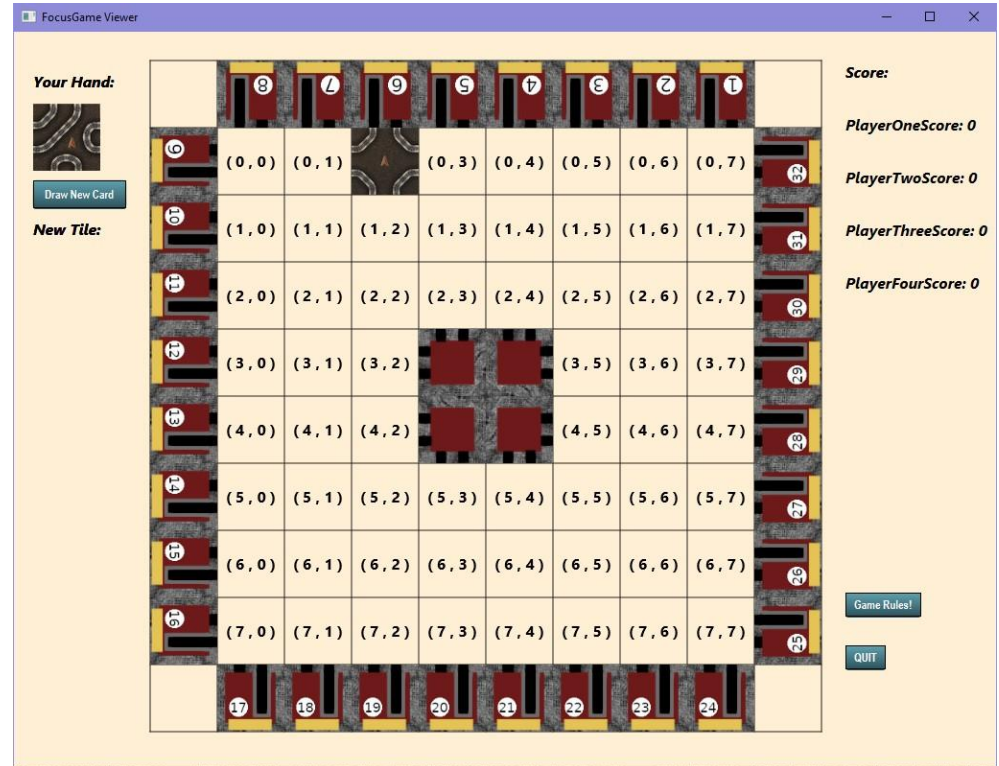
Confirmation dialog

For preventing misclicking on the button. We have made the confirmation dialog to make sure the action is correct before enter or exit the game.



Main Game board

In our main game, tile control is on the left hand side, game board is in the middle and score display will be on the right. Score displaying label will depend on how many player chosen at the start menu. There are total three button during the game. Game rule button will display a new window and show the rule. Quit button will terminate and close the game. Draw new card button will give a new tile to place but the restriction is that it must be place immediately in this round.





Game Feature

- 2 - 6 turn computer opponents
- Click and Drag tiles interaction
- Tile placement confirmation
- No illegal moves allowed
- Live score for each player
- Quick access to game rules
- Quit button for existing the game
- Confirmation dialog before enter or exit the game
- Computer will generate the valid move automatically.

IsPlacementValid

Determine the move is valid or not.

Approach: This approach break down to three main parts.

- Avoiding the tile be placed on the middle station.
- Avoiding the tile be placed on the same location.
- Avoiding the tiles loop back itself or length of 1, but will be valid when it is unavoidable.

Function in the game:

If player place the tile on the invalid location, it will pop up an error dialog box and return the tile back to player's hand to let it place again until the tile be placed on the valid spot.





GetScore

Computes and calculate the score of the players

Approach: This approach break down to four main parts.

- Depending on the number of players, different set of stations are allocated to them
- Each station's score is individually calculated
- A recursion function is used on each station to determine and keep track of where the train is going
- With the knowledge of where the train have been to and where it is going to end, the score would be computed

Function in the game:

Whenever this method is called, all the scores of the station is calculated and allocated to the respective players. Different end station would be taken into account during the calculation, such as double of points in the middle stations



generateMove

Valid move generate by computer opponents.

Approach: This approach break down to four main parts.

- Having all valid location in a list.
- Remove the invalid spot for the specific tiles.
- Adding the new valid location after the tile placed.
- Remove the location which just placed.
- Random generate a move from the valid location.

Function in the game:

We applied this function for our basic computer opponents. After player placed the tile. Computer opponents will drag the tile to the valid location. If there 3 computer opponents, each computer will place a tile. After they placed, it will automatically turn to your round.

Well Played!

After 60 tiles have been placed, a pop up window will display who's the winner and a quit game button to close the game.

