***Doctor Who Ticket to Ride***

**Problem Statement:**

The purpose of this project is to create a computer board game based on the Days of Wonder game, Ticket-to-Ride. This game is a route building game, with the goal of connecting specific locations on a map with owned routes. The game shall follow all the rules indicated in the Ticket-to-Ride USA version, but will have a Doctor Who theme. It will also implement action cards that are not featured in the Days of Wonder version.

**Feature List:**

Start Game Feature

- Select the number of human players

- Select whether the users want to play with Action Cards

- Enter player names

Drawn game board

- Planet coordinates read from file (XML, Text, Excel, or other?)

- Scrollable and zoomable game board later?

- Randomly generated map later?

- Straight routes at first, maybe curved later

Choosing Train Cards

- 2 per turn (combination of deck and face up, only 1 if face up rainbow taken, 2nd face up cannot be rainbow)

- Drawing from deck (110 Cards: Black, White, Blue, Green, Red, Orange, Yellow, Purple, Rainbow)

- Picking from face up options (5 face up at any given time)

- If face up card is picked, the space will be refilled so 5 are always present

-Note: If 3 of 5 face up are rainbow, all 5 discarded and new set laid out

Using train cards to buy a route

- Routes will be clickable

- Selected route will highlight

- Must use cards of route color, number of cards of route length

(Gray can be any color, but all cards used must be same color as each other)

- The user may only buy one of two double routes only

(2 or 3 players, only 1 of 2 double routes can be used by any player)

- Message will pop up if route cannot be purchased

- Cards from hand can then be selected for route

(Start with a deal of 4 cards)

- Okay button will confirm purchase, cancel button will return to map

- Assigning player to a route

- Removing number of trains from stock based on route length placed

(240 Ships [45 of each player color: Blue, Red, Green, Yellow, Black])

- Updating score based on route length placed

(Score ring around edge of board, move colored player piece a given number of spaces)

({Length, Points}={1,1},{2,2},{3,4},{4,7},{5,10},{6,15})

Viewable player statistics

- Hand of current player viewable

- Train stock of all players viewable

- Only current user’s route goal cards accessible to view with button

Switching player with end turn button

Drawing of route goal cards from deck

- Dealt 3 at game outset, keep at least 2, the rest go to the bottom of the deck

- On turn can draw 3 more, must keep at least 1, rest to bottom of deck

- Cards have points for route completion

- Other player’s route cards kept secret until end of game

Monitoring to see if route goals have been met using HashMap to track cities connected to each

- If route goal met, points on card added at end of game, if route not met, points deducted

Text pop ups with Doctor’s dialogue? (Serving as instructions and fun quips)

View rules from main menu, or in game

- Rules text will display on button press

Action cards

- Pay 5 colored cards, the cards don’t have to be the same color

- Vashta Nerada route duplication

- Cult of Scarro planet block

- Slitheen change one of your colored cards to a rainbow card

- Cyberman, turn one route gray (can play needed number, but any single color)

- Time bubble lose a turn

- Full Regeneration, turn in all colored cards and draw the same number

- Ood Sphere, view all players train cards

- Weeping angels, block single route

- Silence, force player to lose all cards of randomly chosen color from their hand (other player draws one card from their hand blindly, and player loses all of that color)

Ending game

- Occurs when any player has 0,1, or 2 Ships left at the end of a turn

- After this all players, including player who had few trains, gets one more turn

- Longest continuous path of routes gains 10 bonus points