Rummy Use-Case: Player Turn
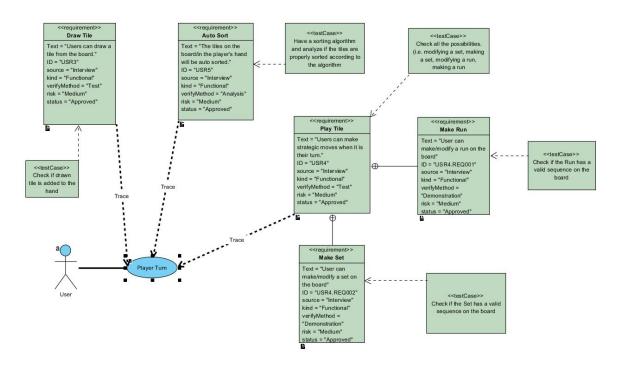

Requirement Model and Use-Case

Use-Case: Player Turn

1. **Brief Description**

   This use case describes actions which players can make during their turn.

2. **Actors**

   Individual Player

3. **Preconditions**

   There is an active connection to the server running the game.
   There are 2 or more players in the game.

   The game is running on a device successfully without any network issues.
   A signal informs the current player's turn.

4. **Basic Flow of Events**

1. The use case begins when the player is informed that it is his/her turn.

2. The player recognizes that his/her turn has occurred and evaluates the board and possible moves

3. The player places tiles on board; selects tiles from hand and drags it to the board, making a sequence of three or more consecutive tiles in a horizontal row to make a run or set.

4. The player also may reorganize the board to supplement his/her move on making sets or run.

5. The board keeps track of what was added.

6. The board keeps memory of the previous state of the board before the player places any tiles.

7. Once the player is done making changes to the board and his hand tiles, he/she presses the "end turn button".

8. The "end turn" button validates any changes the player made to the board. A test case runs to evaluate if all the runs and sets are valid.

9. When test validation is successful, it ends the player's turn.

10. The board organizes the tiles.

11. The use case ends successfully.

5. Alternative Flow

5.1 Invalid tile placement

If in step 3, the player places a tile on another tile, which is on the board, then

1. The tile goes back to the player's hand

2. Resume player turn at step 3.

5.2 Initial Melds

If in step 8, the player has not met the initial melds conditions. Which is to get a run or set of 25, then

1. Player changes are terminated.

2. Player cards return back to the player hand.

3. Resume player turn at step 3.

5.3 Wrong Set/Run

If in step 8, the validation is not occur successfully then,

1. Prompt, player has made an invlid sequence of set or run message.

2. Return board tiles to its previous state.

3. Return player added tiles to the player's hand.

4. Resume player turn at step 3.

5.4 No Move

If in step 7, the player has not added any tiles to the board then

1. Prompt message that player has not made any move.

2. Make the player draw a tile.

3. The Use case ends and begins the next player's turn.

5.5 Placing tiles outside the play area.

If in step 3, the player tries to put the tiles outside the playing area then,

1. Return player added tiles to the player's hand.

2. Resume player turn at step 3.

5.6 Existing game

If at any point before step 9, does the user tries to quit game, then

1. Player hand tiles are added to the deck.

2. Deck is shuffled.

3. The use case ends with a failure condition and moves to the next player turn.

6. Post-conditions

6.1 Successful Completion

The player successfully completes his/her turn and use case ends. Starts the next player turn.

6.2 Failure Condition.

The player exits the game and the game continues with one less player.