Katie Taylor and Lilu Martin

Description:

Intro

Players are bit actors looking for cowboy acting jobs in the Deadwood backlot. Players, represented on the board as 6-sided dice whose number indicates their talent rank, traverse scenes in the backlot, taking on roles less than or equal to their talent rank.

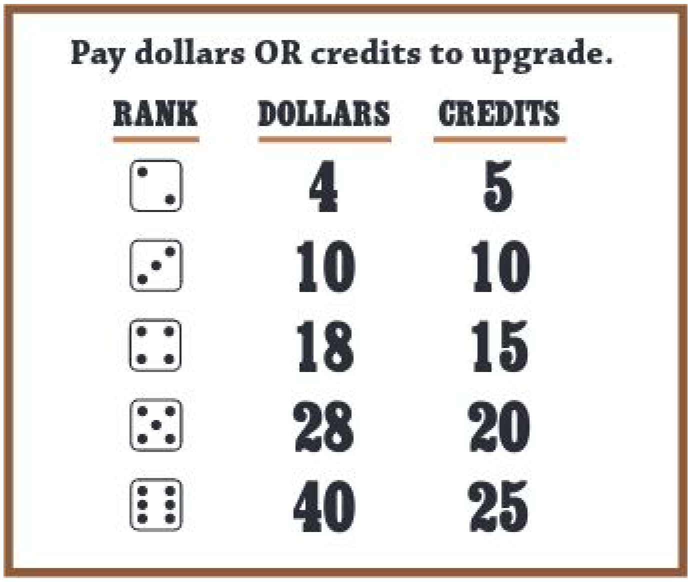
Initialization

Players start in the Trailers with rank 1, in the basic flow. Cards represent scenes, and one is dealt face down to each set on the board. Place shot markers on the 1-3 numbered circles on each set.

Turns

Players can do the following:

1. If you're not working on a role: *optionally* move one step to any adjacent connected area and/or take a role.
    a. Only 1 player/role
    b. Roles on the board are extras (considered "off the card"), and roles on the cards are starring roles (considered "on the card"). Generally, but not always, high-numbered roles pay better than lower ones. You can only take roles that're >= to your talent rank
    c. Either before or after you move: At the casting office, you can pay to raise your rank:



Pay dollars OR credits to upgrade.

RANK	DOLLARS	CREDITS
⚁	4	5
⚂	10	10
⚃	18	15
⚄	28	20
⚅	40	25

- You pay for the rank to move to regardless of your current rank; you don't pay for any intermediate ranks.

2. If you're already working on a role: act or rehearse. You can't leave until the scene wraps.
    a. Working on roles earns you credits and money. The budget of each movie is $2-6 million.

b. To act: roll another 6-sided die. Compare the result to the movie budget: >= the movie budget indicates success, while < the movie budget indicates failure.
   i. On the card:
      1. Success: remove a shot counter and take 2 credits
      2. Failure: do nothing
   ii. Off the card:
      1. Success: remove a shot counter and take $1 and 1 credit
      2. Failure: take $1

c. To rehearse: Take 1 practice chip, which adds +1 to all die roles while acting on this role, persisting through multiple shots.

d. When a scene wraps, remove the card. If there was >= 1 player working on the card, then they get bonus money based on the following rules:
   i. Bonuses for on-card roles: the active player rolls as many dice as millions of dollars of movie budget. Distribute the dice, matching each one in decreasing value to the roles in decreasing order and wrapping around when you run out of roles, so that each role has multiple dice. The players acting on these roles receive money equivalent to the dice assigned to those roles.
   ii. Bonuses for off-card roles: Every extra gets paid a bonus equivalente to their role's rank (regardless of the player rank).

End of days and end of game:

When there is only one scene left, the day ends and this last scene doesn't finish. Players return to the trailers to start the next day, if there is one, starting from the next player. Deal new scene cards onto the board for all sets and reset all shot counters. The game ends after the 4th day and players' scores are calculated. The player with the highest score wins!
Player's score = (1 point/dollar) + (1 point/credit) + (5 points * player rank)

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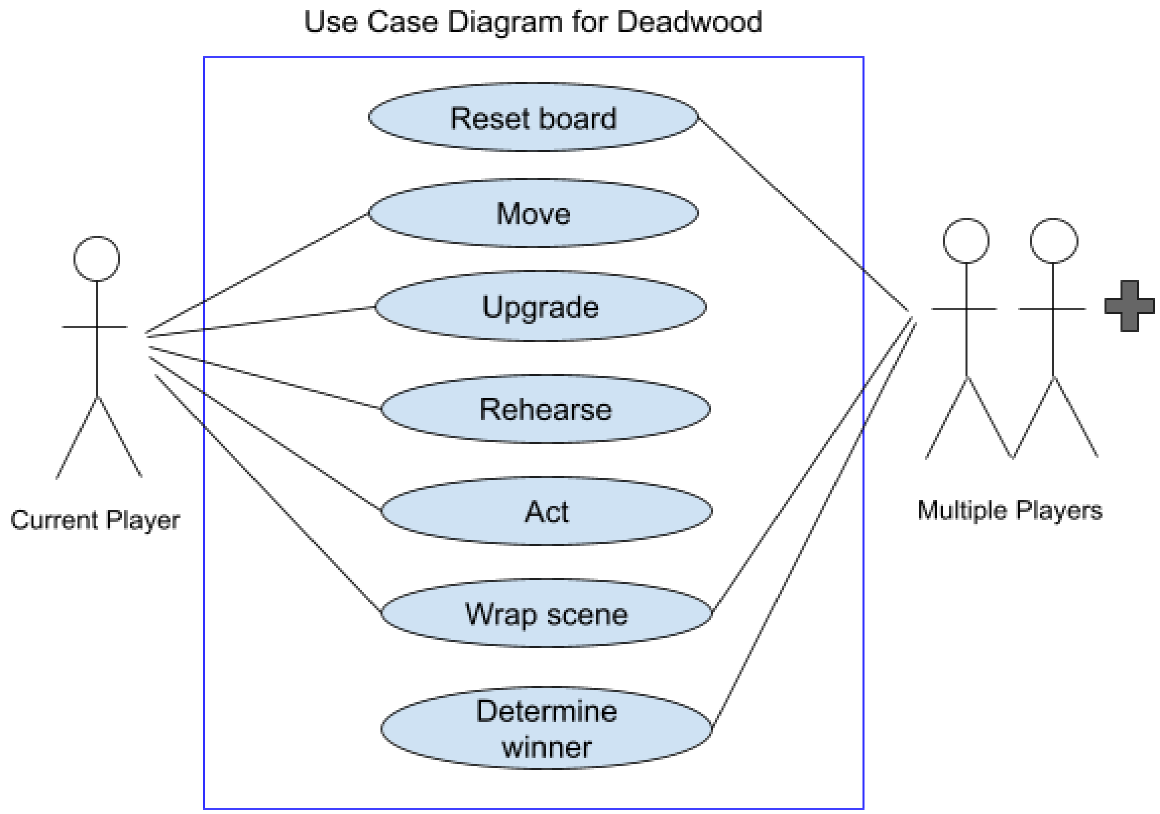
Actors: All players (2-8), all players in a particular scene, or just current player

Use Case Diagram:



Use Cases:

Use case title: Reset board

Actor(s): All players

Trigger: A new day is starting

Pre-condition: All needed gameplay materials are ready

Termination outcome: Players are located in the Trailers

Post-condition: Each set will have a single new scene card and the shot markers will all be present

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Basic flow:

1.) Initialize board and its sets (Shuffle and redeal the scene cards to each set and place shot markers on any empty numbered circles so that each set has all circles filled)
2.) Assuming it's day 1, set all players' ranks to 1
3.) Move all players to the Trailers

Alternate flow - step 2:

2a. There are 5 players and it is day 1.

.1: start each player with 2 credits; return to step 3.

Alternate flow - step 2:

2a. There are 6 players and it is day 1.

.1: Start each player with 4 credits; return to step 3.

Alternate flow - step 2:

2a. There are 7-8 players and it is day 1.

.1: start each player with a rank of 2; return to step 3.

Alternate flow - step 2:

2a. It is not day one.

.1: Do not change anyone's rank/credits now; return to step 3.

Use case title: Move

Actor(s): Current player

Trigger: Current player is not working on a role and chooses to move

Pre-condition: There is at least one adjacent connected area to move to

Termination outcome: The current player is in a different adjacent connected area than before

Post-condition: N/A

Basic flow:

1.) The current player moves one step to any adjacent connected area
2.) Display available roles on that set
3.) The current player takes one of the available roles that is <= their talent rank

Alternate flow - Step 2:

2a.) The current player is in casting office

.1: The current player ends the move use case (but not necessarily their turn b/c they still may begin the upgrade use case)

Alternate flow - Step 2:

2b.) The current player doesn't take a role

.1: The current player ends the move use case

Use case title: Upgrade

Actor(s): Current player

Trigger: Current player decides they want to upgrade their rank

Pre-condition: Current player is in the casting office

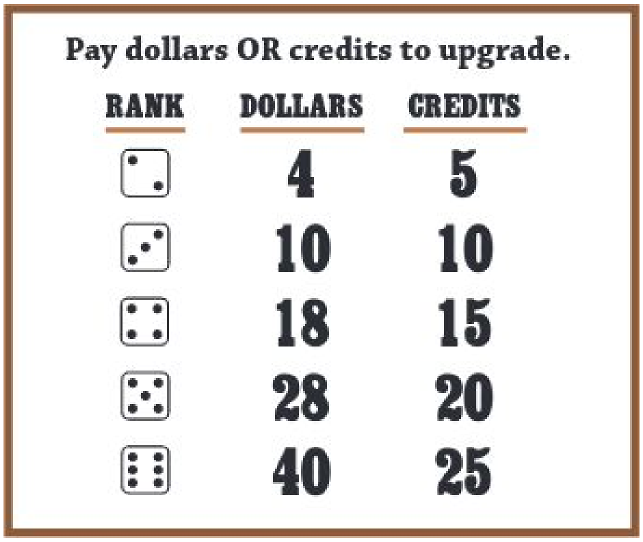
Termination outcome:

- On success: current player's rank is higher than before
- On failure: current player's rank isn't higher than before

Post-condition: N/A

Basic flow:

1.) The current player decides what rank they want
2.) The current player pays dollars to the Casting Office to obtain the desired rank based on the table below:



Pay dollars OR credits to upgrade.

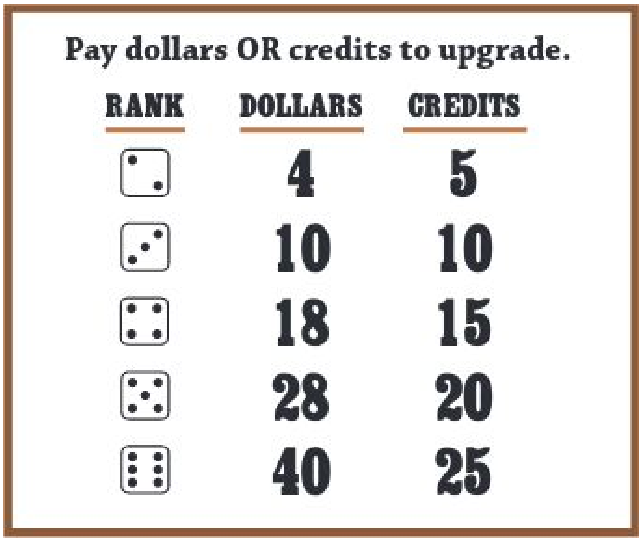
RANK	DOLLARS	CREDITS
⚁	4	5
⚂	10	10
⚃	18	15
⚄	28	20
⚅	40	25

3.) The current player's rank is changed to match

Alternate flow - Step 2:

2a.) Player pays credits instead of dollars

.1: The current player pays credits to the Casting Office to obtain the desired rank based on the table below; return to step 3



Pay dollars OR credits to upgrade.

RANK	DOLLARS	CREDITS
⚁	4	5
⚂	10	10
⚃	18	15
⚄	28	20
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Alternate flow - Step 2:

2b.) Player doesn't have sufficient dollars or credits to upgrade rank

.1: Player attempts to pay to upgrade rank

.2: Player's attempt is rejected

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Use case title: Rehearse

Actor(s): Current player

Trigger: Current player decides to rehearse and doesn’t already have enough practice chips to ensure success

Pre-condition: Current player is already working on a role

Termination outcome: Current player has one more practice chip than before

Post-condition: Current player’s turn is over

Basic flow:

1.) Current player gains one practice chip, which adds +1 to all die roles while acting on this role, persisting through multiple shots

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Use case title: Act

Actor(s): Current player

Trigger: Current player chooses to act

Pre-condition: Current player is already working on a role

Termination outcome:

- On success: remove a shot counter, collect pay
- On failure: don’t remove a shot counter, maybe get $1

Post-condition: Acting player cannot move until the scene is over

Basic flow:

1.) Role a 6-sided die
2.) Compare the result to the movie budget
3.) Assuming the current player is on the card and the die roll result is >= the movie budget, current player removes a shot counter and takes 2 credits

Alternate flow - Step 3:

3a.) Assuming the current player is on the card and the die roll result is < movie budget

.1: Do nothing

Alternate flow - Step 3:

3a.) Assuming current player is off the card and the die roll result is >= the movie budget

.1: Current player removes a shot counter and takes $1 and 1 credit

Alternate flow - Step 3:

3a.) Assuming current player is off the card and the die roll result is < the movie budget

.1: Current player takes $1

Use case title: Wrap scene

Actor(s): All players in scene

Trigger: Player(s) finished acting all shots in scene (all shot tokens gone)

Pre-condition: N/A

Termination outcome: scene no longer actable and scene card gets removed

Post-condition: actors are free to move on next turn

Basic flow:

1.) The following flow assumes there was >= 1 player working on the card. The active player rolls as many dice as millions of dollars of movie budget.
2.) Distribute the dice, matching each one in decreasing value to the roles in decreasing order and wrapping around when you run out of roles, so that each on-card role has multiple dice.
3.) The players acting on these on-card roles receive money equivalent to the dice assigned to those roles.
4.) Every extra gets paid a bonus equivalente to their role's rank (regardless of the player rank).
5.) Remove card/roles from scene

Alternate flow - step 1:

1a.) No players worked on the card in this scene.

.1: No bonuses paid; return to step 5.

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Use case title: Determine winner

Actor(s): All players

Trigger: if 2-3 players: then 3 days have been played, or if 4+ players: then 4 days have been played

Pre-condition: The last scene of the last day did not finish

Termination outcome: Scores have been determined and the largest score belongs to the winner

Post-condition: One player is the winner and the game is over

Basic flow:

1.) One player determines their score based on the following formula: Player's score = (1 point/dollar) + (1 point/credit) + (5 points * player rank)
2.) Repeat step 2 for all players
3.) The player with the highest score is the winner

Alternate flow - step 3:

3a) There is a tie for the highest score

.1: The players with the highest score are all the winners

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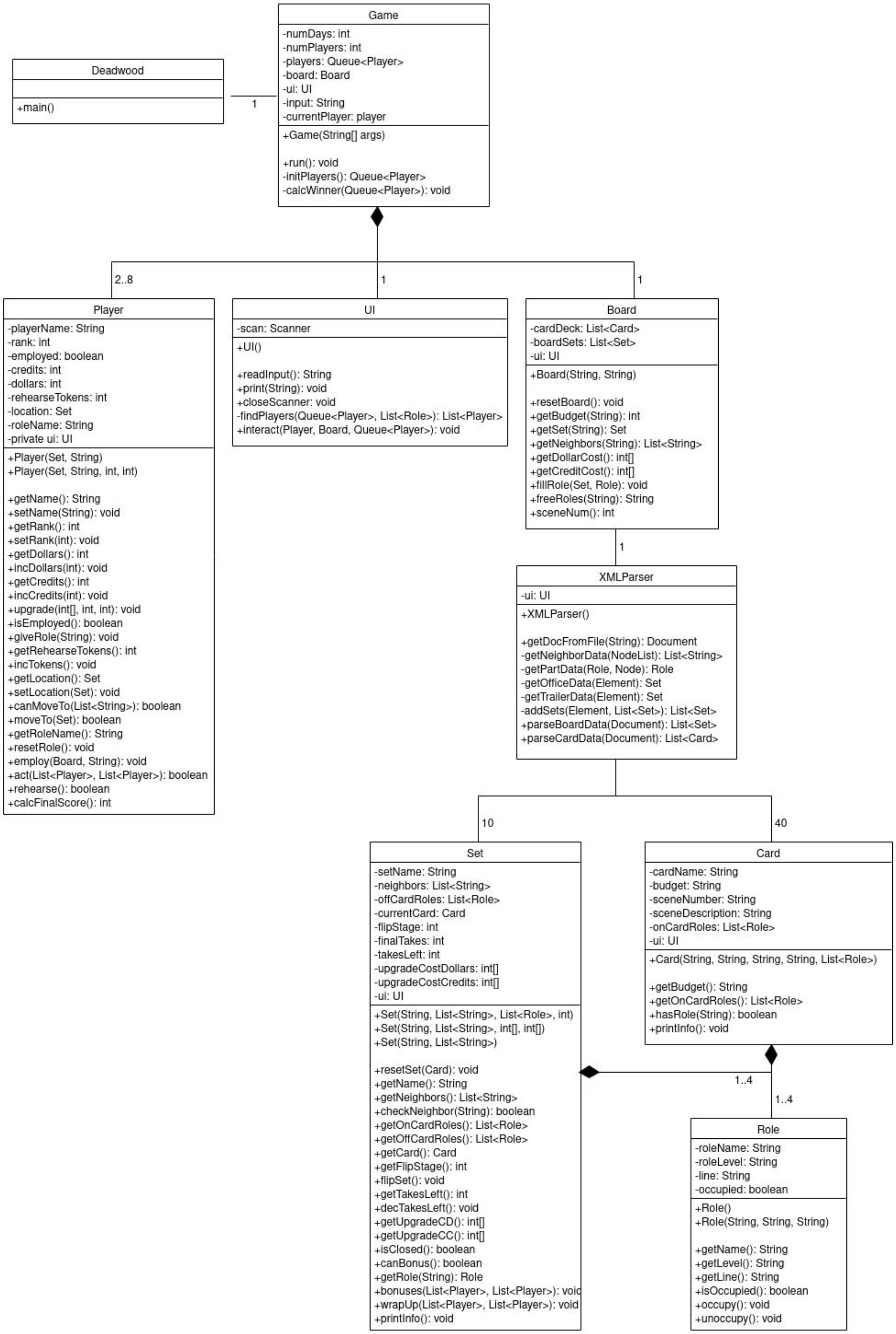
Class Diagram



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Change Log (A4)

Change -- Reason

- Make Deadwood class separate from Game -- avoid static methods for running game
- Remove CastingOffice class -- it wasn't really doing anything (the way we set it up it wasn't able to be put in an arraylist with the sets) and it made more sense to have the player manage their own upgrades
- Add UI class -- separate game logic from UI, for looser coupling
- Add XMLParser -- it's needed to parse XML (which we didn't know about originally)
- Added a bunch of methods to Player -- many getters and setters needed to keep Player attributes private and updated
- Add Card class -- separate Card's attributes and Role from Set's attributes and Role (allow for easy shuffling)
- Add compositional relationships from Role to Card and from Role to Set -- both Card and Set initialize Roles separately