

Dance Fans

Requirements and Analysis Document (RAD)

TDA367

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1 Introduction

The project aim is to create a fun, top-down, 2D strategy game in which two players play as dancers who compete in gaining the most dance fans on the dance floor.

The game will be a turn-based, two player game played locally on one device. Players take turns making dance moves with their dancer to win over dance fans who join them on the dance floor. The players get to choose dance moves using a card-based system, where each kind of dancer has a specific deck of cards that match the characteristics of that dancer. By playing your cards right you win over more and more dance fans on the dancefloor, until the dancefloor is either full of dancers or enough rounds have passed.

The stakeholder for this project is the members of the group, but specifically Joar who came up with the game idea and who has thought about creating a game like this before the course.

Since the project is a game the people who would benefit from it would be people who enjoy playing games. For this game in particular maybe people who enjoy strategy games and playing with other people.

1.1 Definitions, acronyms, and abbreviations

Player = a user of the program and their corresponding representation in-game.

Main Dancer = The dancer the user controls to make dance moves in order to gain dance fans and win the game.

Dance Fan = One of the dance fans, which join the dance floor inspired by the Main Dancers dance moves. The player with the most dance fans at the end of the game wins.

Dancer = A dance fan or a main dancer

Dance floor = The world in which a dancer can be located and move around within, in the game.

Dance move = A pattern and a set number of steps a player can move across the dance floor. The pattern tells us how the dance floor will change after the dance move is performed. The dance move inspires dance fans to join in on the player's dance team. These dance moves are represented in the game as cards in a deck of cards (a main dancer's repertoire of dance moves).

Dance pattern = The pattern part of the dance move.

Card = Representation of dance moves in the game, to help the player choose strategy.

Preview = A special view of what the dance floor would look like if the player performed the dance move of the currently selected card at the location the selection marker is currently located on the dance floor.

2 Requirements

2.1 User Stories

1. As a player I want a window which displays the Dance floor so that I can understand and think about how to play the game.

Acceptance Criteria:

- DanceFloor is fully visible on the screen.
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2. As a player I want a main dancer so that I can tell where I am during the game.

Acceptance Criteria:

- Both players Main dancers are visible on the dance floor.
- They should look different so that the players don't get confused.
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3. As a player I want to be able to move my main dancer so that I can affect different areas of the dance floor.

Acceptance Criteria:

- When a player presses certain buttons the player's main dancer moves.
- A Main dancer can not move outside of the dance floor.
- The buttons used should be commonly used buttons.
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4. As a player I want to be able to choose between two or more cards so that I can choose what best fits with the situation and improve my chances of winning.

Acceptance Criteria:

- Each player should have their own card deck.
- The cards that the player has "on hand" are visible on the screen.
- More than one card should be "on hand".
- The player can see which card is currently selected.
- New cards should replace the cards as they are used.
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5. As a player I want the game to clearly indicate where I can move my main dancer so that I do not get confused or frustrated.

Acceptance Criteria:

- Main dancer can not move further than the amount of steps given by the dance move.
- When the player changes between cards the main dancer should be moved back to the position it started the round on from its position in the preview.
- Some type of visual indicator of where the Main dancer can move.

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6. As a player I want to be able to see how my move would affect the dance floor so that I can compare the different possible options I have in order to make it easier to make the best possible decision.

Acceptance Criteria:

- A preview which shows how the dance floor would be affected is visible.
- When the player changes the selected card, the preview is also changed.

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7. As one of two players I want my cards on hand to be hidden unless it is my turn so that the other player does not know what my possible moves are, which will make it more difficult for them to win against me.

Acceptance Criteria:

- After a player has made their move the next player's cards on hand are hidden.
- Some type of input is needed to make the cards visible again.

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8. As a user I want to be able to resize the window of the game so that it fits my screen according to my needs.

Acceptance Criteria:

- The game scales proportionally when one changes the size of the window.
- The layout should remain the same so the user still knows where everything is.

9. As a player I want it to be clear how to interact with the game so that I can be certain that what I intended to happen is what actually happens and therefore make me less confused and frustrated.

Acceptance Criteria:

- There should be explanations in the window which shows which buttons are used and what they do.

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10. As a player I want to know when the game is finished and which player has won so that I know if I won or not.

Acceptance Criteria:

- When the Dance floor is filled with Dance Fan:s the game ends.
- After a certain amount of rounds the game ends even if there are still empty tiles on the Dance floor.
- When the game ends there is an indicator of who won.

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11. As two players we want to be able to start a new game easily so that we can compete again.

Acceptance Criteria:

- A new game can be started without restarting the program.
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12. As a player I want to be able to choose between different main dancers so that I can choose the one I visually or strategically like the best.
- Acceptance Criteria:
- There should be more than 2 Main dancers to choose from.
 - Before the game starts the players get to choose which Main dancer they want to play as.
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13. As a player I want to have many cards in my deck so that the game is more varied and I get more options.
- Acceptance Criteria:
- A Card deck should consist of at least 10 cards.
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2.2 Definition of Done

All criterias of the user story have been met. Should be well commented so that others can understand. Before accepting a pull request, at least one person who participated in designing the feature needs to review the implementation. Relevant tests have been written.

2.3 User interface

These images represented the initial idea of the game. Some rules changed during development.

See Appendix 1.1

The player chooses between different cards representing dance moves that the main dancer can perform. In Appendix 1.1 you can see how the preview of the dancefloor changes depending on which dance move card is selected.

See Appendix 1.2

When the player decides to use a card and confirms it, those tiles on the floor are confirmed in the color of the main dancer that performed the dance move. In the theme of the game this means that more dancers came up on the dance floor because they got inspired by the main dancer's dance moves!

See Appendix 1.3

Their turn is now over and the dance move card used is placed in the discard pile. Thematically this makes sense since the main dancer wants to vary dance moves to impress potential dance fans more. The cards come back a few turns later however! Later when it is that player's turn again, it draws new cards from its main dancer's drawpile, a deck of dance move cards.

See Appendix 1.4

Now it is the next main dancer's turn (the red main dancer) who has different kinds of cards (shown at the top of the image) representing that dancer's dance style.

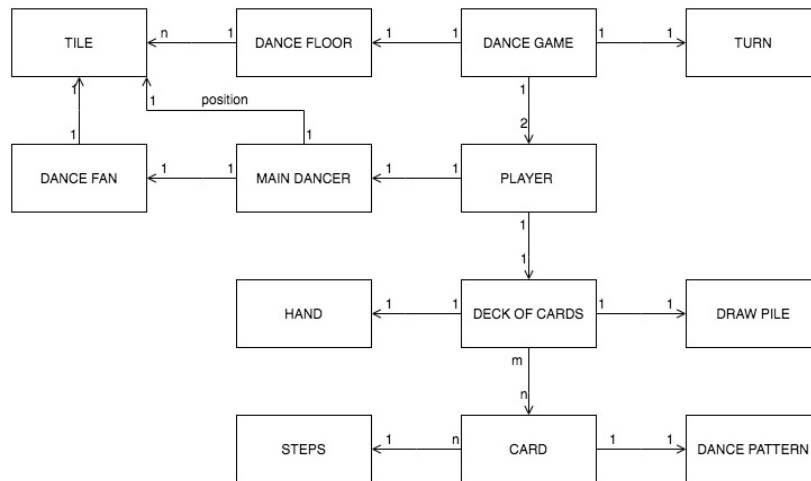
See Appendix 1.5

When the red main dancer does its dance move with a pattern covering the green dance fans, they are overtaken to the red players team and color. This has similarities to games like Othello and Go.

See Appendix 1.6

When a certain amount of turns has passed (thematically that the song has ended) or if the whole dance floor is filled with dancers, the player who has the most dancers of her color on the dance floor wins!

3 Domain Model



3.1 Class Responsibilities

See appendix 1.7 for an UML class diagram.

DanceFloor contains a list of tiles and the order of them. It is also responsible for changing the details of the specific tiles.

Tiles contains information about what is currently standing on the tile, and can tell us what the name of that thing is.

CardDeck contains multiple lists of Card:s, and in what order they are in. The different lists are the currently opened cards, the used cards, the unused cards, and a copy of the original list which was used to create the deck in the first place. It can shuffle Card:s in a list, and also handles moving the cards between the different lists.

Card contains a matrix which is used to represent the Dance pattern, an int for the amount of steps and an image representation of the card.

Main dancer contains a String for its name and two ints for its positions, one for which tile it is currently on, and one for showing the preview.

Dance Fan has a String for its name and an int for its position.

Player has a CardDeck, a Main dancer, and a Dance fan.

4 References

List all references to external tools, platforms, libraries, papers, etc.

<https://github.com/libgdx/libgdx>

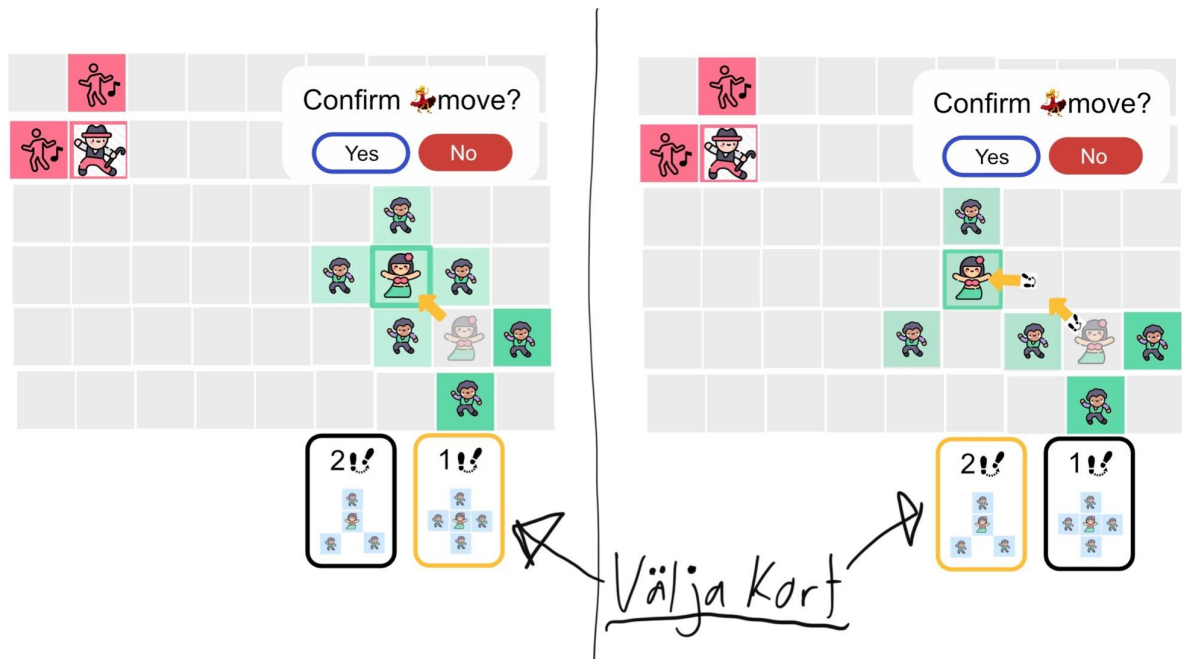
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<https://www.codeandweb.com/texturepacker>

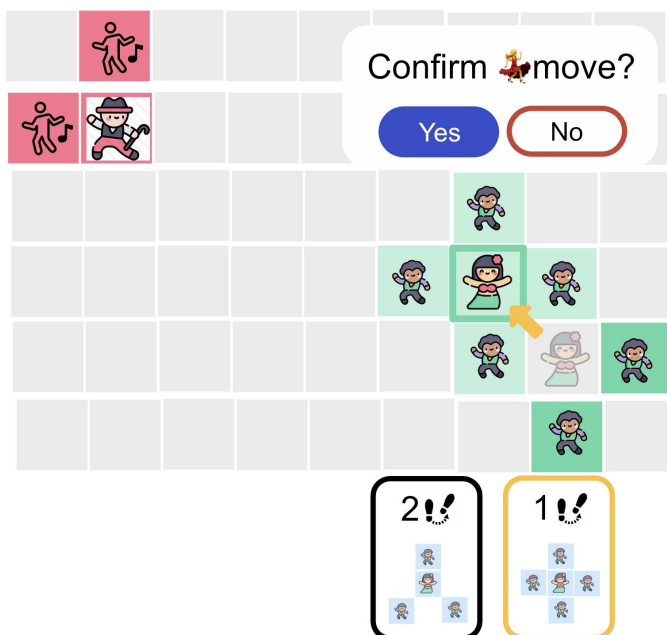
Dancers images made by Freepik from www.flaticon.com

Appendix

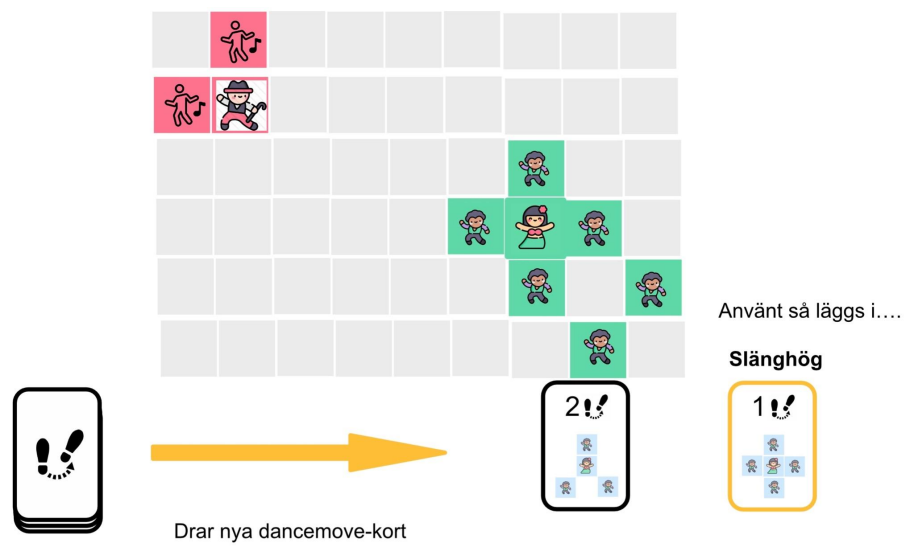
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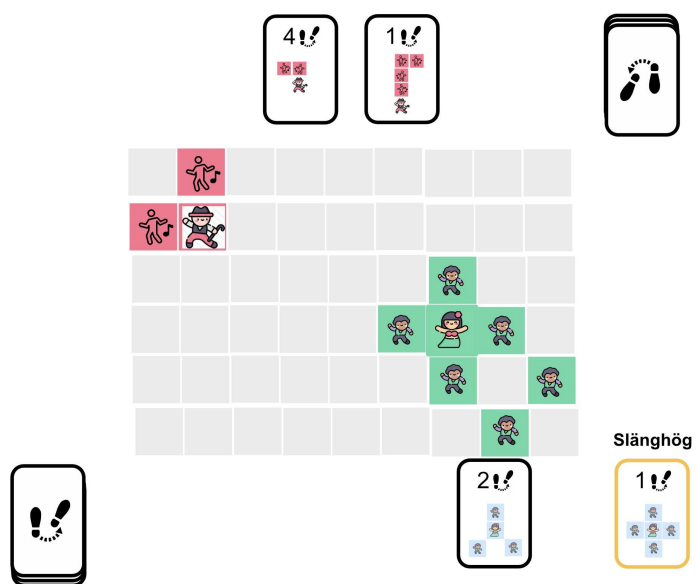
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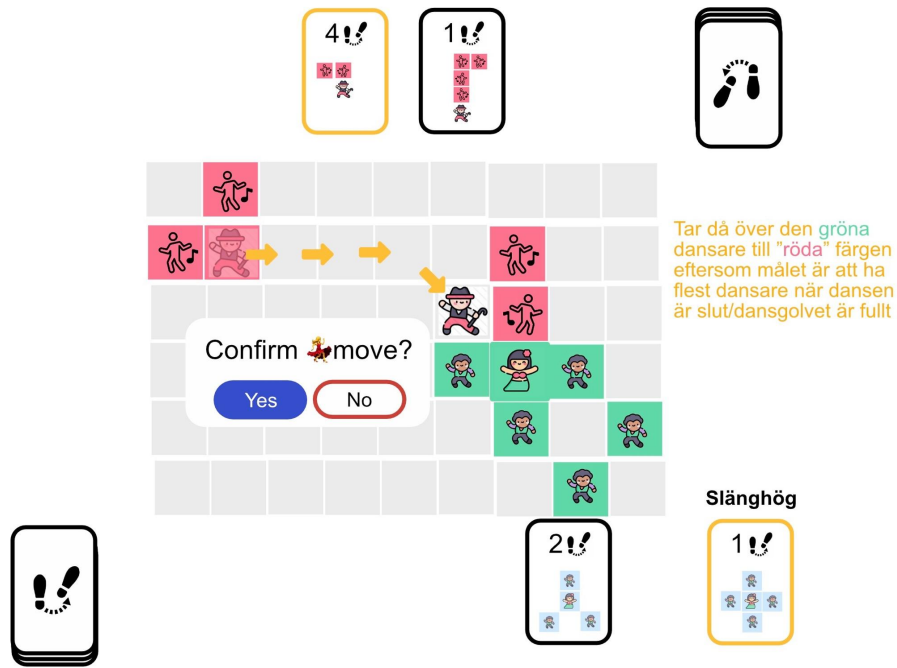
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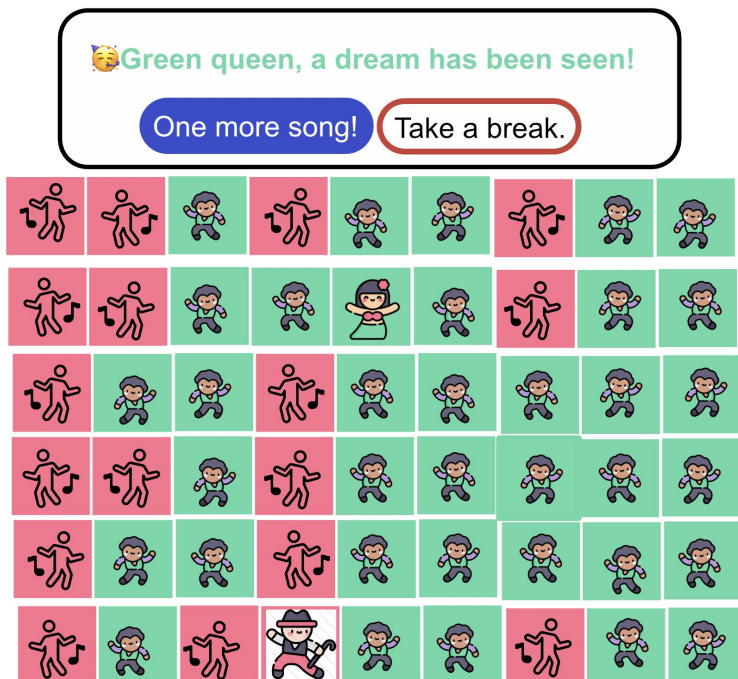
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1.6



1.7

