syst 17796 Deliverable 1

design document

## Project Background and Description

**PROJECT GOALS AND FINAL VISION:**

The project goal is to make a card game known as “Match and Win” with team collaboration.

Final vision of the project is to make the team members capable of working within the group (with different people having different roles) and enhance their skills making them capable for working in software development team.

**Brief description of how to play the game:**

1. The deck of cards is equally divided between two players by the system after shuffling of the cards.
2. Both the players are not allowed to see the face of the cards, but they must keep the card upside-down.
3. Players starts the game by showing the card and keeping the card at common place one after another and so on.
4. Play continues until the cards shown by player1 matches with the players2 or vice versa, and when this criterion is met, the last player who displayed the card wins the round and get control over all the cards which were shown by both the players in round one which he can use in the future.
5. The same criteria is followed again and again until one player loses all the cards.
6. The player who is left with no card in the end loses the game and the other one is declared as the winner.

## Project Scope

**ROLES OF TEAM MEMBERS:**

**Arunpal Singh**: Planned the rules for the game and described the project goals

**Arshpreet Kaur**: Created git repository to let all the team members work together on the project from their local computers

**Arshpal Singh**: Created Use case for representing the goals of system-user interactions. Also created use case diagrams to model the objects that make up the system, to display the relationships between the objects, and to describe what those objects do and the services that they provide.

**Navjeet Kaur**: Described the completion point of the project as well as the technical scope and requirements.

**TECHNICAL SCOPE:**

We want to create a smooth card game by coding which works properly without any errors, reflects coding skills of us.

## High-Level Requirements

The system must include the following:

* Ability to play with computer as a second player
* Ability for players to ask the system to shuffle the deck multiple times
* Ability for players to know their scores after each round

## Implementation Plan

* URL: https://github.com/ArshpreetkaurB/Fantastic4.git
* We used GitHub to facilitate project management and collaboration.
* We used NetBeans for coding.

## Models

**Step 1. Scenario:**

To play the card game known as “Match and Win”

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**Step 2. Stakeholder:**

1. Player: An individual who plays the game.
2. System: An individual who makes decision regarding game

Actors involved: Player, System.

**Step 3. Events and Use Case:**

|  |  |  |
| --- | --- | --- |
| Event | Event Type | Use Case |
| System divides the deck of cards equally | External | Distribute deck |
| Players shuffle cards | External | Shuffle cards |
| Player starts game | External | Begin game |
| Player show cards | External | Show card |
| Player wins the round  and gets more card | External | Wins round |
| Player plays more rounds | External | Replay rounds |
| Player left with no card loses the game | External | Loses game |

**Step 4. Use Case Diagram:**

Diagram

Description automatically generated

**Step 4. Domain Class diagram:**

Diagram

Description automatically generated