Millionaire Luck

Game Design Document

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Game's rules, setting, and gameplay are subjected to alteration in the development.

1. Overview

Millionaire Luck is a 2D 4-players multiplayer digital board game. Players take turn to moves in block decided by dice. The goal is to complete objective which are kept track by level system, each level can have different objective. Incorporating "question & choice answers" into one of a scoring system, and having players compete their knowledge, general and specific, for a chance to score and steal point. *This game design took a lot of inspiration from* "100% Orange Juice"
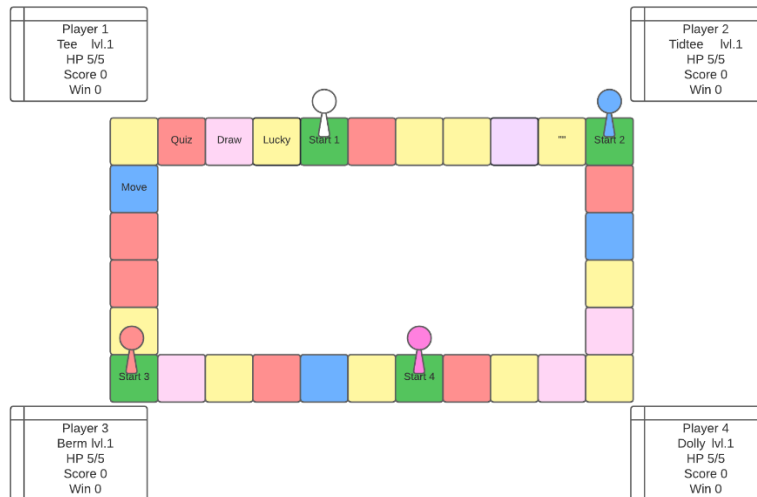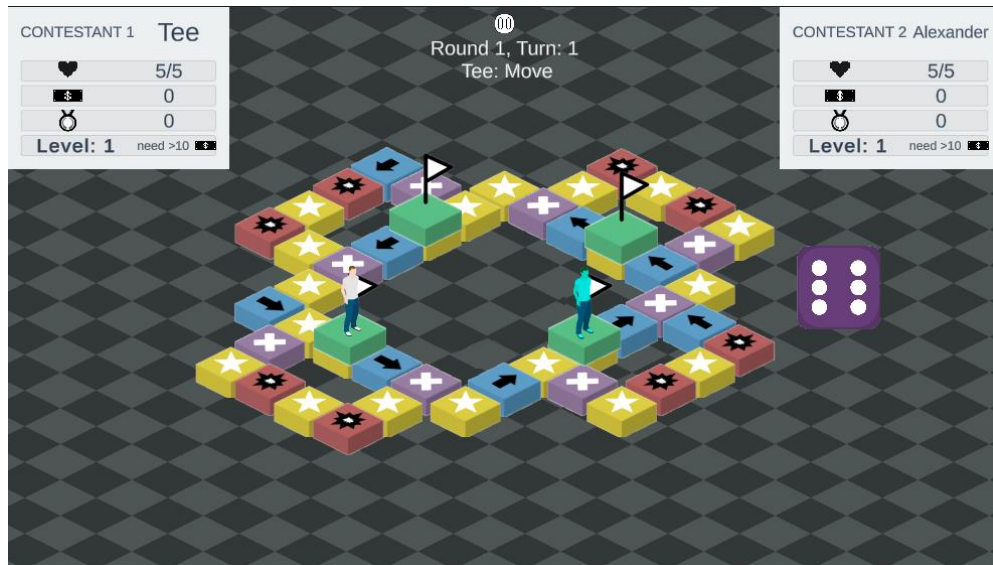

Figure 1: Draft of game interface

Figure 2 General look

1.1 Vision Statement

- **Easy to get into** figure out as they play,

- **Differentiable questions** divide question into categories and difficulty

  levels

- **"All is fair..."** player can win by good strategy, wit, and good luck

1.2 Target Audiences

From age range of teen to adult, questions will require prior knowledge in the matter

of both general and specific subjects

1.3 Playtime

Game is split into session, each session take an estimated 10 minutes to finish

2. **Core Gameplay**

2.1 Control

All action can be taken using a Mouse Input

2.1.1 **Rolling dice**

Game is played in turn, at the start of the turn player move by **rolling a dice** and then move for the rolled dice face

Players move in grid, while moving there may be additional action that are available and presented to the player (Grid intersection, challenging another player, Stopping at Checkpoint)

2.1.2 **Turn-Based**

Players take turn rolling the dice, but some action will require other players to perform action during current player turn

2.2 Players

2.2.1 Overview

Players are represented by a human contestant avatar. Each player starts on the **Starting Block**. With following attributes

Var	Name	Representation in game	Description
hp	Hit points, Health	Heart	- Have max amount, player need to roll dice equal or above to 5 when hp drop to 0. *Lose hp from losing Quiz Battle*
score	Score/Quiz Money	Bank note	Gain from **Quiz** and other sources *(Score Block, Quiz Battle, Round End)*

wins	Quiz round won	Medal	• Keep track of amount of Quizzes Battle won
lvl	Level	Number	• Gain from completing objective

2.2.2 Leveling

Player may win when they reach the max **lvl** there is in the game, which can be achieve by completing objectives either be a reach **Score needed** or **Number of Win** which players can choose when finishing previous level. Players start with 1st condition is Reaching Score Needed

| Level	Score needed	Number of Win
0	>10	0
2	>25	>4
3	>60	>14
4	>140	>20

Player can complete objective by reaching the amount needed and stopping at their **Starting Position**

2.2.3 Player action

Action	Description
Move	• Roll the dice and move with respect to the number rolled

Quiz Battle	• Prompted when moving pass another player. *the player will also stay that block that battle happen* • Initiate a Quiz Battle but with other NPC
Stay at Checkpoint	• Prompted when passing player's own **Starting Block**

• Player Action – **Move**

  • Throw the dice, and move for total of numbers on the dice (1-6)

  • Board can have intersection within the path, player can choose which path to
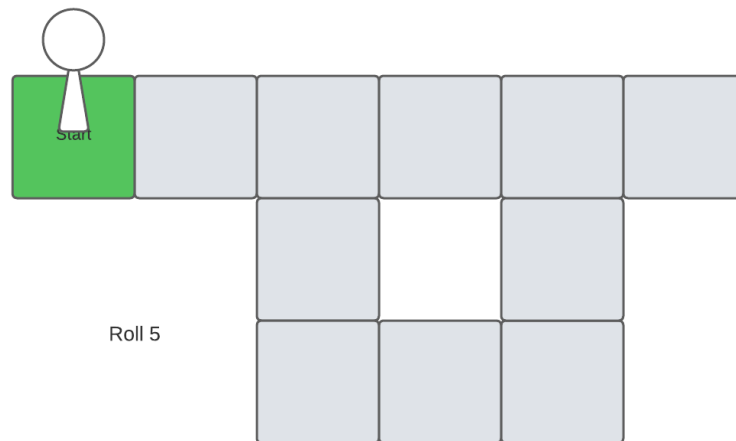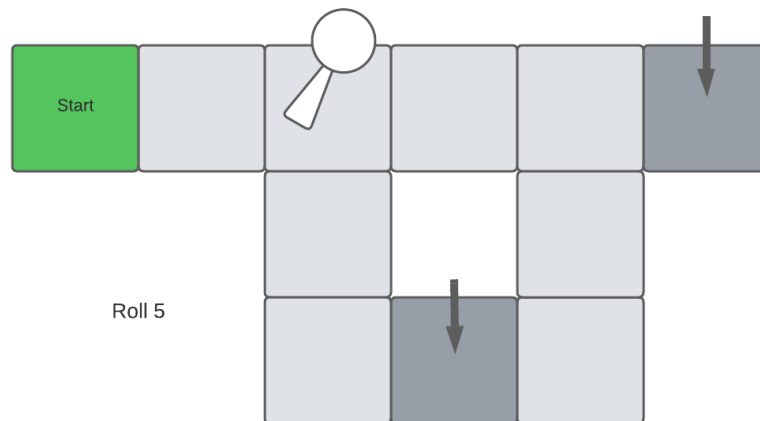

go

Figure 3: Roll 5

Figure 4: Approaching an intersection, showing choices possible

2.2.4   Player Action – **Stay at Checkpoint**

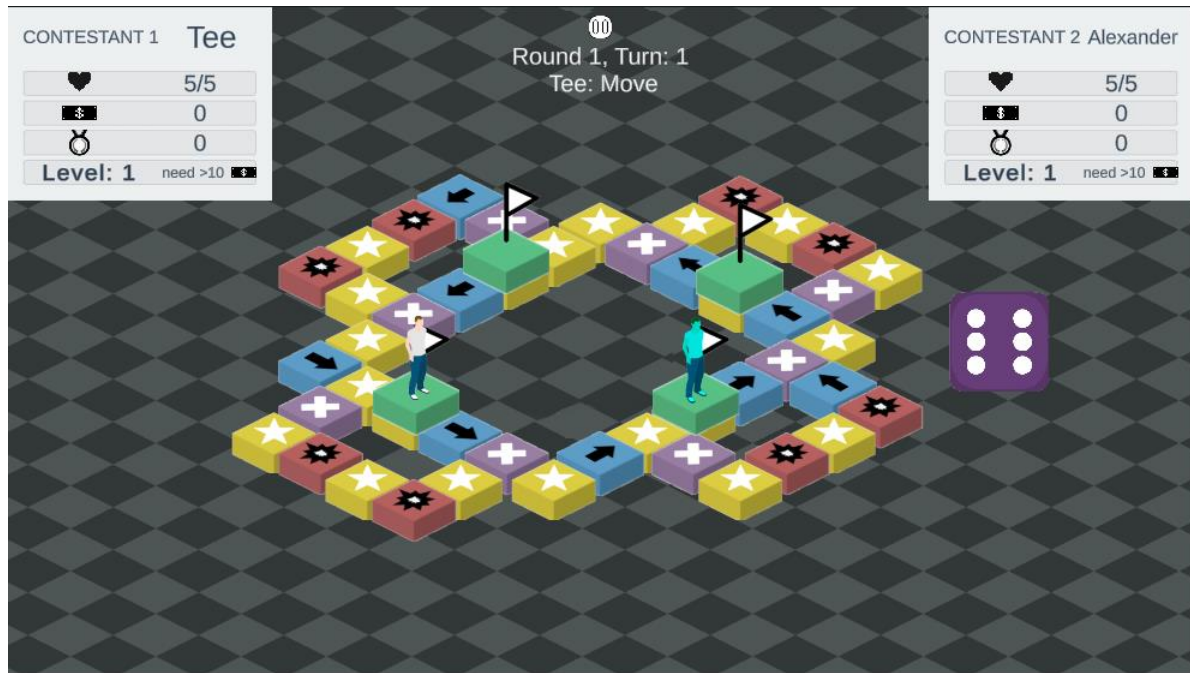- Can only be performed while the player is passing their **Starting Block**

2.2.5   Player Action – **Card**

- Performing this action activate the card effect and end their turn

2.2.6   Player Knock Out (KO)

- When hp drop to 0, the next turn of that player, they need to roll dice with value of 5 or up to be revive and back into the game
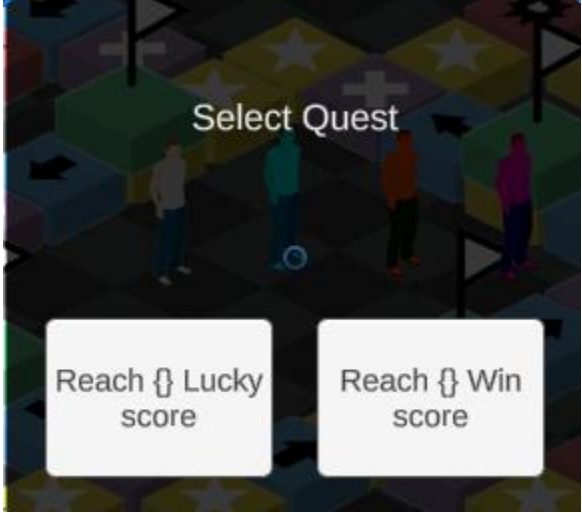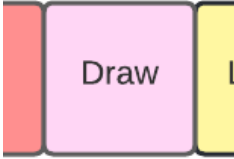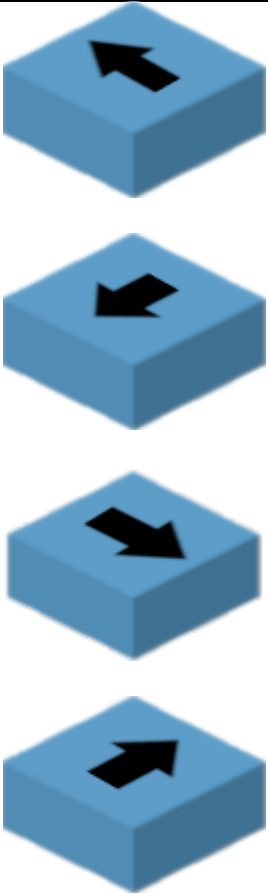
2.3 Environment

Players will perform additional action after their initial move, the performed action is according to the Types of Blocks they player landed in

2.3.1 Types of Blocks

Characteristic/color	Name	Description/Effect
	Starting Block	- Primary Block for starting position and order of each contestant - Act as the checkpoint, each players have their own checkpoint - Objective are checked when player stop, and players can choose objective after finishing previous objective with prompt that will occur

|		
		-
	Luck Block	- Player rolls their dice and get **score**
	*Draw Block	- *Player gets a random card
	Quiz Block	- Force player into **Quiz Battle** with NPC - Winning grant **wins**

|		
	Move Block	- Starting next turn with the same player that landed on this block
	Unlucky Block	- Player rolls their dice and lose **score**

2.4 Quiz Battle

2.4.1 Player Quiz Battle

- When player pass another or end at position of other player, a prompt will ask the player if they want to Challenge to Quiz Battle
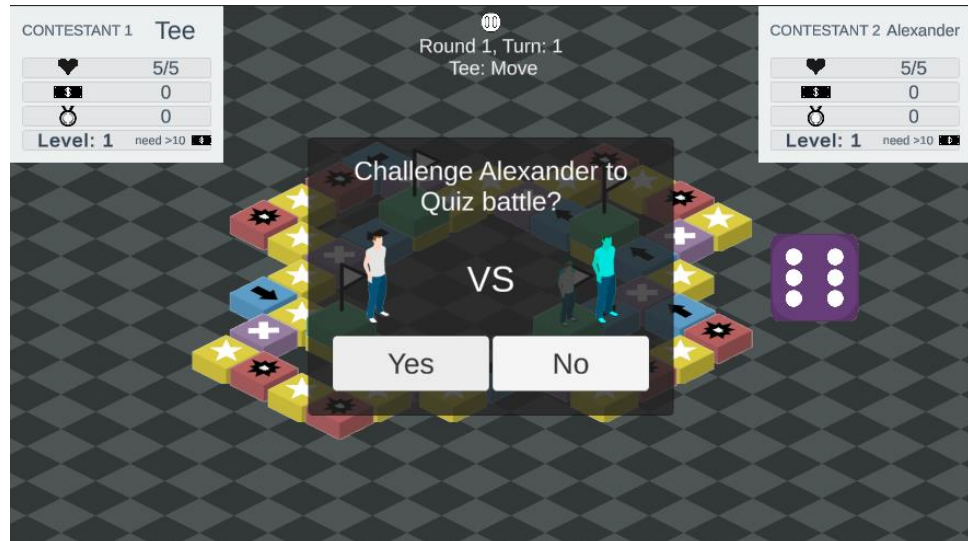
- In any case, choosing **Yes** will result in the position of player to be that of the other player and will no longer be moving after

  AND **No** mean the player will resume any action they have left

- Starting Quiz Battle

  - Player take turn, starter rolls dice for attack then the other player rolls for defend
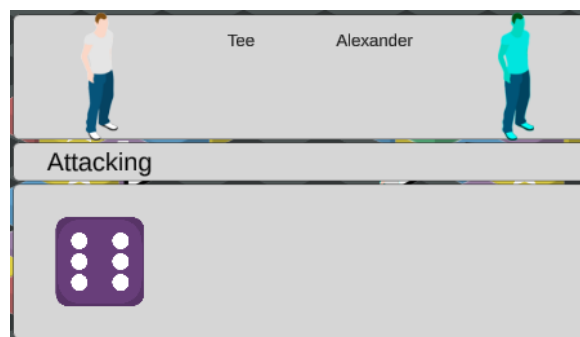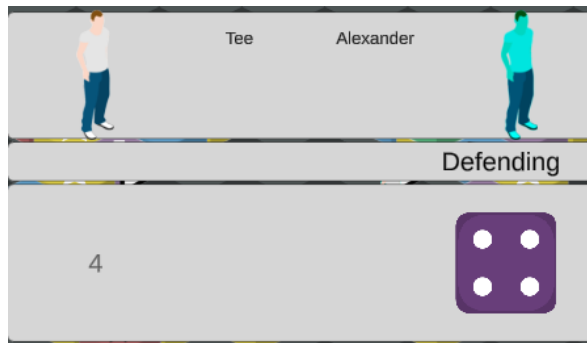
- The different of the two dice rolled then calculated to player damage

[If the different is below 0, the final damage will be -1]

- The next step is repeated as above but the other player will act as starter

- After the Starter defending roll are done, a question will pop up and the Starter and the Other will take turn answering, Starter will go first

Tee...Answer me this

First woman to fly solo across the Atlantic Ocean

Amelia Earhart	Marie Curie
Princess Diana	Ripley

- After both players have chosen the answer, indicator will tell which is the correct of the chosen answer

Alexander...Answer me this

First woman to fly solo across the Atlantic Ocean

Amelia Earhart Tee	Marie Curie Alexander
Princess Diana	Ripley

- The player that answers correctly get +2 win point, and the wrong answer lose **hp** according to the damage number at the start

2.4.2 Quiz Battle Block

- Similar stage to Player Battle, but player is in battle with an NPC instead

- Rolling start with NPC rolling for attack and then player would roll for defend

- After that Question would start normally only that the player would be the

  only one choosing answer, then proceed the same as Player Battle

3. Game World

3.1 **Backstory** - The year is 2050, a world where human have been separated into group by their level of intelligence. A secret game host society determine that people should not only be segregate by only their intelligence, but instead on their Luck as well. And so, they start to find the Players to be contestants that participate in a gameshow called "Million Luck"

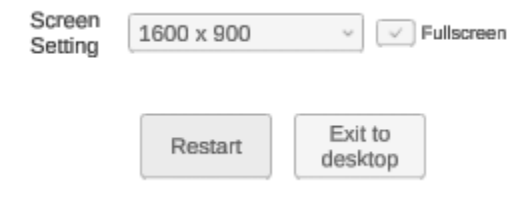**3.2** **Setting** - Player are dictated by the gameshow setting

4. **User Interface**
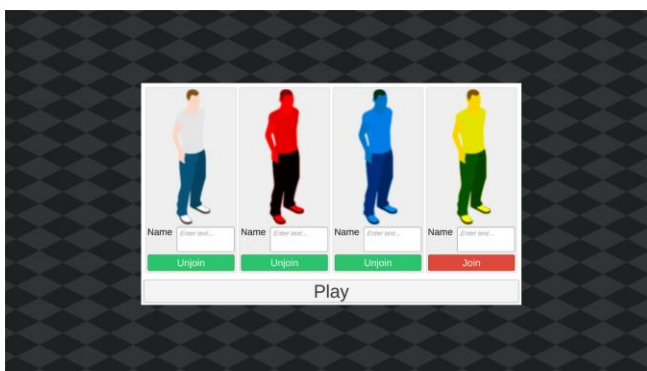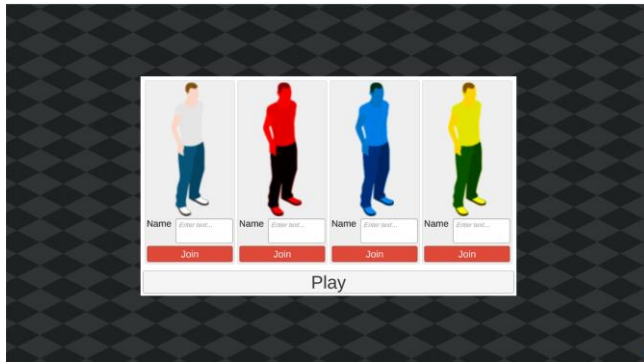
4.1 **Control Scheme**

4.1.1 Click

All object that are clickable should be focused on by either one of the following

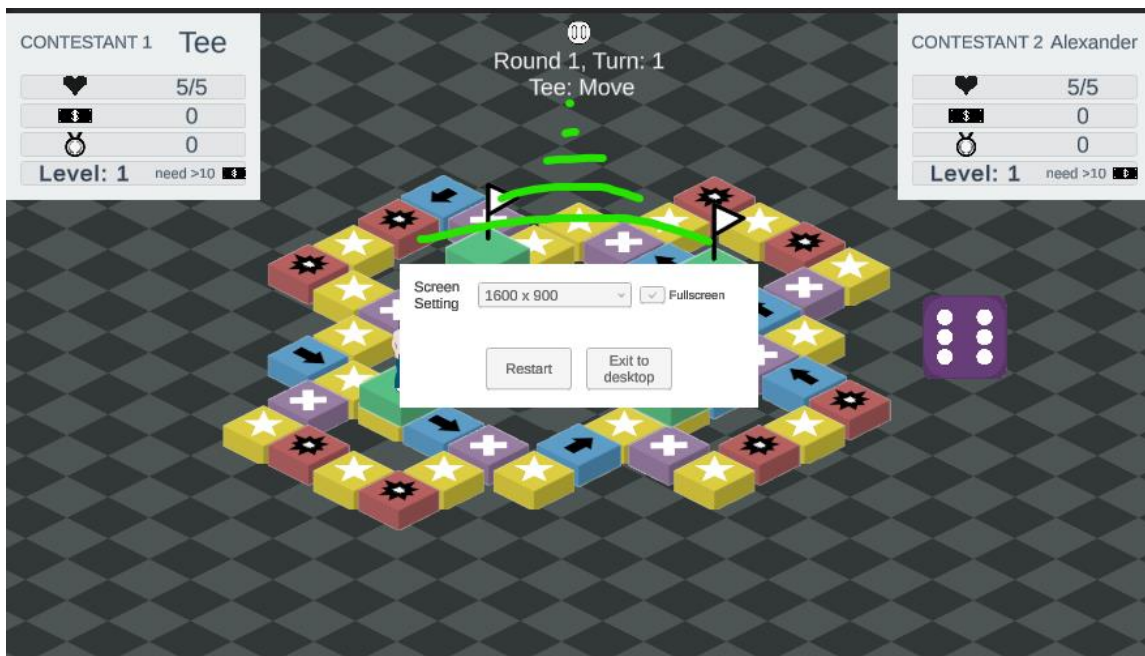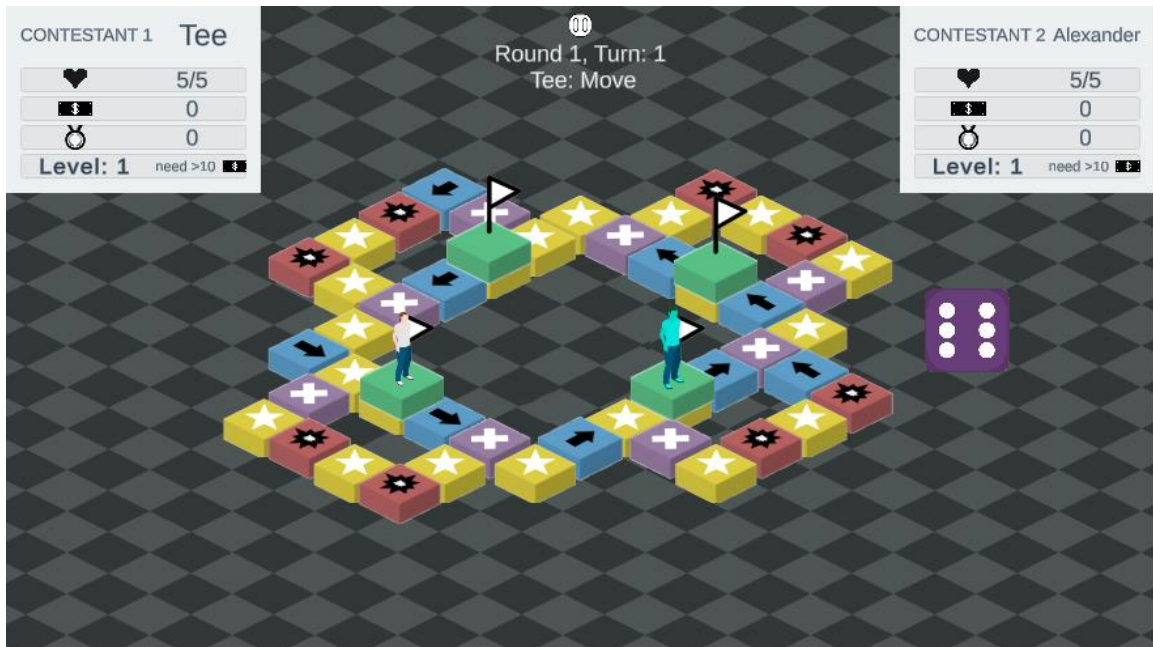- Looping size scale animation

- Visible Button/radio/dropdown outline

4.1.2 Screen flow mockups

- Start Menu

- Setting

- Gameplay

  Adobe XD mockup flow

5. **Game Objects**

5.1 NPC – "Smartest Orge"

5.1.1 Backstory – Not actually an ogre, just a stupid human who also spell their name

wrong to the gameshow hence the origin of "Orge"

Will participate against the player in any Quiz Battle Block

5.1.2 Attribute – Identical component to Players

- Name = "Smartest Orge"

- Attack: 1 to 6

5.2 Players

5.2.1 Path – Dictate how the mover will move the player

- waypointIndex: positive integer

- Movespeed: positive float

- playerHomeIndex: positive integer

5.2.2 PlayerAttribute – Used to figure out the logic and Display status

- name: String for display name

- hp: positive integer

- level: [0, Last level Index]

- score: positive integer

- win: positive integer

- attack: Positive integer

- defend: Positive integer

- Win Condition: enum { winWin, ScoreWin }, Tell what the objective is

5.3 GameController

5.3.1   GameController – Singleton pattern code to control which player is performing what, and what does Dice roll do for current context

- players_ingame: Array of Transform of players in game

- diceSideThrown: Positive integer, Currently rolled dice value

- diceMode: enum {Move, DoubleMove, Attack, Defend, FreeMoney, LoseMoney, QuizMode, Revive, Disable}, Tell current dice mode for action to perform

- whoseTurn: Z+, index of current turn + 1, ex. First turn Player1, whose Turn = 1

5.4   Dice

- DiceControl – Display dice and roll, and send rolled number to GameController

6. **Tools**

6.1   Unity Editor – Good Starting point for game engine tool

6.2   Paint 3D – Useful for making transparent background of easy to identify background

7. **Idea and Expansion**

7.1   Online Multiplayer

Integrated full online multiplayer

7.2   Cards

Using cards in the hand. Can be done during turn, or before **Quiz Battle**

Cards are split into 2 types, **Quiz Card** which can be activated before **Quiz Battle**, and **Activate Card** which can be activated while not in the phase of Quiz Battle (include before)

Card Name	Activate Condition	Description/Effect
Half: Half	Quiz Card	If this unit go into Quiz Battle, reduce the choice to half amount
Burnout Attack	Quiz Card	+1 attack and -1 defend

Help ME!	Quiz Card	Force all the other contestants to help you by asking them what they answer
SPRINT!	Activate Card	Use 2 dice to move this round

8. **Asset**

8.1   UI/WaitForUIButtons **Link**

8.2   Modifying the asset from **Icogram**