

All things gaming: **Board Games**

Group level task - **Implementing Achievements**

- Main page (outside the two games) where the user can choose which game (Game of Life or Skill Issue, Bro!) to play. On this page, the user can also change their language.
- After the user chooses the game, they enter that game's menu, where they can host/join/rejoin matches or change the game's settings.

Game of Life

OBJECTIVE: maximize happiness; **2-6 players**

Requirements:

Board: 80 total tiles;

- contains **forks** in the road. Forks are intersections where the player can choose to go left or right by clicking on the corresponding direction arrow. The player will be prompted to pick a direction when the number on the spinner would make the player encounter a fork.
- START tile: every player starts from this tile
- DEFAULT tiles: **yellow**, the player does not take any special action upon **passing over it** or **stopping directly on it**
- **SALARY tiles: (8) green** when the player **passes over it** OR **stops directly on it**, they get a sum of money. The salary value IS CALCULATED IN THE BEGINNING AS **100*NR ON THE SPINNER** AND will later be AFFECTED BY CAREER EVENT CARDS (**NOTE: THE SPINNER IS UNFAIR** – it is less likely to land on big numbers than smaller numbers)
- EVENT CARD tiles; when the player **stops directly on it**, they draw a card from the corresponding pile:
 - **HEALTH tiles: (10) red** - draw a card from the HEALTH card set
 - **CAREER tiles: (10) blue** - draw a card from the CAREER card set
 - **SOCIAL tiles: (10) orange** - draw a card from the SOCIAL card set

- These cards will contain a description of the EVENT and its effect (by what value it will increase or decrease the happiness score/ salary/ current cash value)

- **START** conditions:

HAPPINESS level: each player starts with a **50** happiness score. This score can be increased or decreased by EVENT CARDS. If the score drops below **-10**, the player is disqualified (**GAME OVER**). This score does not have an upper limit. It is the *high score* that will determine the leaderboard.

CASH: each player starts with \$1500.


No power ups are active upon start.


- **END** conditions:

- Game ends after **40 rounds**; the winner is the player with highest happiness score;
- **EARLY GAME OVER:**
 - If player's happiness score drops below **-10**
 - If player draws a **health card** with "INSTANT DEATH"

- A **turn** starts when the player can spin the wheel. It ends when the player finishes moving their pawn and does what is said on the card (if they land on any tile that requires drawing a card from the corresponding pile)
- A **round** ends when all players have finished their turns (a **counter to 40** will be displayed in the center of the top of the screen)
- Tiles are **randomly generated** on the board
- A **spinner**: wheel with numbers 1 through 10 **not** uniformly distributed; **UNFAIR!** Less likely to land on big numbers than smaller numbers. Placed in the (left) corner.
- Player moves the given number of tiles
- **CARD SETS:** 16 cards in each set
 - **Social:** (e.g: you get a pet - LOSE MONEY; you go out with friends - LOSE MONEY, INCREASE HAPPINESS; it is your birthday - RECEIVE a specified amount of MONEY (FROM ALL PLAYERS); receive money from one player; your relationship ended - DECREASE HAPPINESS; war broke out - DECREASE HAPPINESS;)
 - **Career:** Salary changes (Promotion/Getting fired), Debt, Lawsuit

- **Health:** Health problems decrease happiness;
 - 25% escapable death (pay a specified amount or die/lose)
 - 10% certain death
 - (e.g: you get into an accident; instant death; you have pneumonia - PAY OR DIE; doctors are on strike - DIE)
- When the player needs to take a card, the card is randomly chosen from the set, and the probabilities of picking a certain card follow an uniform distribution. The card is put back (the number of cards in a set stays the same throughout the game).
- **Disconnected players**(players that closed the game or lost connection to the game server), that don't reconnect in 1 minute, are **eliminated** from the game. If only one player remains they are declared the winner, but only if the remaining player played at least 25 rounds (so it can't be exploited). No winner is declared otherwise.
- A disconnected player will only be allowed to reconnect to the match they were in before disconnecting (**the host match and join match buttons will be replaced with the rejoin match button**). If the match ended in the meantime, they will have the Host Match and Join Match buttons back.
- There is a button to give up the current match. The match will continue as if the player had fully disconnected.
- Some cards can prompt each player to spin for a reward/ to avoid a punishment (e.g.: all players spin, highest number takes money)
- A card's effects happen **once**, for the current move. No card can have effects that last multiple turns.
- If a player - we'll call him player1 - lands on an **occupied tile** (the tile already has another player's - we'll call him player2 - pawn on it), player1 advances one tile forward.
- When it is a player's turn and they haven't spun the wheel yet, they can access the power-up shop menu (opened with a button that is grayed out when it is not the player's turn), all power-ups are bought with cash
- A player can buy at most 2 teleports per game (see the types of power-ups below).
- A player cannot combine power ups that last multiple rounds.
- Every ability has a slot, when the player doesn't have the ability and doesn't have enough cash to buy it, the ability image is grayed out; when the player has enough cash, the **buy button** is made active (colored and clickable)
- When the ability is on cooldown, it has the cooldown counter on the image, the image is grayed out and it cannot be used. The cooldown is active on the slot meaning that even if the player runs out of the ability, the cooldown is still active.

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- **Teleports** - the player can use this to teleport anywhere on the table. When used, the player no longer has to spin the wheel. Only the tile on which the player lands has an effect; we do not consider that the player **passed over** Salary tiles and so it is **not** given. After using the teleport, the turn is over. **COOLDOWN: 1 round**
 - **Health immunity** - the player is not affected by BAD health cards for 3 rounds. Cannot be combined with other power ups. **COOLDOWN: 10 rounds**
 - **Financial immunity** - the player is not affected by BAD career cards for 3 rounds. Cannot be combined with other power ups. **COOLDOWN: 5 round**
 - **Heart of Steel** - the player's happiness does not decrease from BAD social cards for 3 rounds. Cannot be combined with other power ups. **COOLDOWN: 5 round**
 - Power ups can only be used **during the turn** of the player
 - **COOLDOWN** - The player must wait X rounds in order to be able to use this type of ability again.
 - When a player moves, we will keep track of certain **achievement triggers** (e.g: first player to reach \$100k, first player to die in the game) (**flag based**)
 - The achievements are individual (an achievement doesn't necessarily have a single achiever), and for a user's entire existence (they don't reset at each game) (e.g.: in your first game in which you manage to be the first player to reach \$100k, you get that achievement).
 - Users can host a game or join an existing game with a provided code. The **host** picks how many players the game will have. (the host can start the game anyway, if at least 2 players joined)
 - Menu settings will include: picking a board & card set **theme**, picking a **pawn** from existing options. ("**LIFE IS UNFAIR**": cash start value is randomly (uniformly) generated from the values 1000, 1250, 1500, 1750, 2000, 2250, 2500) on/off
 - DB Tables:
 - Cards
 - Card Sets
 - Local Leaderboard
 - Achievements
 - Custom Playsets:
 - Board Texture

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- Pawns
 - Spinner

“Skill issue, bro!” (“Nu te supăra, frate”)

2-4 players

Requirements:

Before

- Users can host a game or join an existing game with a provided code. The host picks how many players (2, 3, or 4) the game will have. (the host can start the game anyway, if at least 2 players joined, including the host)

Board:

- **START** “HOME” area: four colored circles in EACH CORNER, for each of the four players. This is the area all pawns start from.
- Shape of a cross outline; 40 **main path** tiles. The first tile on the main path on which pawns are placed is colored its corresponding color.
- **FINAL** “WIN” area: 4 colored tiles orthogonally, in the middle of each side of the cross shape.


- **START conditions:**

- Colors are randomly assigned to the players (red, yellow, green, blue)
- Each player has **four** pawns. They are placed at the **start area** on their corresponding color

- **END conditions:**

- The game ends when **<total_number_of_players - 1>** players (total_number_of_players => 2 and <= 4) are on their corresponding colors in the **win area** with **ALL** of their pawns.

- Two 6 sided dice which follow the **Uniform Distribution**
- Player moves exactly the number on the two dice **if there is space left on the board** (not at the end of the board), otherwise no move occurs
- A player is chosen at **random** to roll the dice first (they click on a button, the dice can be displayed in the middle of the board or on the side)
- To move a pawn from start area to the main path, a player needs to roll (6,6)
- Pawns start on the colored spot corresponding to the player
- Each player is allowed to roll once, **unless they have a double** (1,1; 2,2 etc) in that case, they are allowed another roll **for each double**
- The **goal** is for every pawn to end on one of the 4 tiles in the **win area**
- If a pawn cannot move exactly the amount on the dice (summed) without exceeding the final "win" tile, then it won't move at all
- A player can move **any** of their 4 pawns on the main path
- If a player lands on a **tile already occupied** by a different player's pawn, they eliminate it from the main path (sends it back to the **start area**, and it will need to be brought back with a roll of [6,6])
- **All pawns move in the same direction** (indicated by arrows) and **cannot move in reverse**
- The **leaderboard** is computed based on the **order** in which each player finished placing all their pawns (except for the last player who is automatically the last one)
- The **game state** is updated after a move is made / before the next player rolls the dice
- **If a player loses connection, the game will be frozen**
- Upon **reconnecting**, the game will **resume** with the last committed state. The other players will wait in the game
- If the player doesn't reconnect within **5 minutes**, the game is resumed from the last committed state but with the disconnected player removed from the board, and considered last. If multiple players leave at the same time, the places will be distributed randomly.

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- e.g.: 4 players: player A disconnects indefinitely -> they are last place (4). Player B disconnects too -> they are 3rd place.
 - A disconnected player will only be allowed to reconnect to the match they were in before disconnecting (**the host match and join match buttons will be replaced with the rejoin match button**). If the match ended in the meantime, they will have the Host Match and Join Match buttons back.
 - There is a button to give up the current match. The match will continue as if the player had fully disconnected.
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- DB Tables:
 - Game State - in order to freeze the game if someone leaves (can be extended to a correspondence type game)
 - Local leaderboard (generated at the end of the match, matches end when all / 3 of the players have all their pawns on the corresponding colors)
 - Achievements