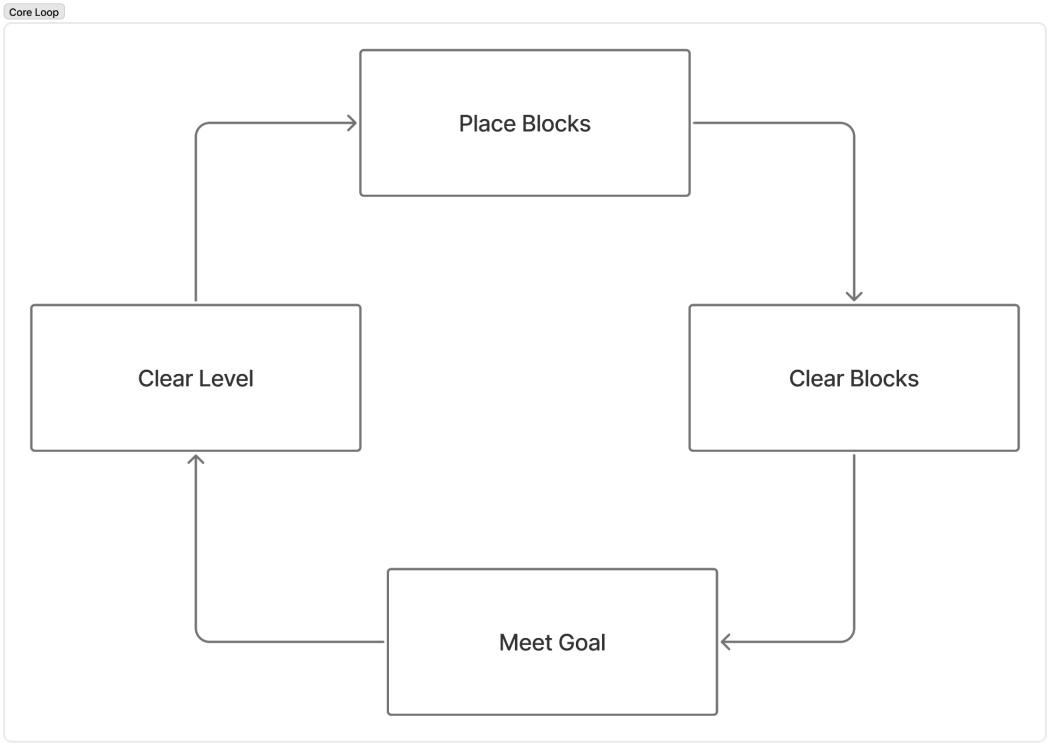
BlockFest

- Hook
  - BlockFest is a reimagined classic block puzzle that combines spatial placement with goal-driven progression, offering a fresh, level-based challenge on a 9×9 grid. Place, clear, and collect colored blocks to progress through levels while unlocking unique mechanics and power-ups.
- Overview
  - **Genre**: Puzzle, Block Puzzle, Hybrid Casual
  - **Brief Description**: A block-puzzle game where players place colored blocks on a 9×9 grid, clearing and collecting them to complete levels.
  - **Target Audience**: Casual to hybrid-casual mobile puzzle players (ages 18-45, slightly skewed female)
  - **USP**: A block puzzle with Goal-driven progression and variety.
  - **Player Motivations:** Progress, complete levels, and explore content.
  - **Art Style**: Stylized cartoon realism with a focus on shiny and glossy textures, and juicy and bouncy animations.
  - **Music**: Playful and soothing, looping soundtracks.
  - **Monetization Model**: F2P (IAPs, Interstitial and Rewarded Ads)
  - **Development Cycle Duration**: 18 days (initial build) + 3 days (testing) = 3 weeks
  - **Initial Release Levels Count**: 30 (handcrafted)
  - **Targets**:
    - **Daily Average Session Duration**: 15 minutes
    - **D1 Retention**: 30%
    - **D7 Retention**: 10%
- Research & Rational
  - Observation (Nani!?)
    - At the beginning of this year, I started closely **tracking puzzle game trends** while also actively playing in the genre. My exploration began with **HexaSort**, where I noticed an interesting design choice: **each tile carried two key qualities**: it occupied **space**, and its **color** mattered.
    - What I realised over time is, in contrast, most **block-puzzle games** reduce blocks to purely spatial elements. Even in titles that attempted to assign meaning to color (e.g., Block Smash), the implementation **lacked depth** and failed to deliver satisfying gameplay or monetization opportunities.
    - Through this research, I identified a **significant gap**: **block puzzles are highly popular** among players yet remain **under-explored in terms of mechanics, monetization, and long-term retention systems.** And the market signals only added more facts to support.
  - Market Signals
    - **Block Blast** was the **most downloaded mobile game worldwide in H1 2025**, with **~220M installs**. It has now surpassed **500M installs on Google Play**.

    - **Block Smash**, one of the few games that tries adding meaning to the color of the blocks, released in Q3 2023, has 20M downloads and $20k revenue despite its loose attempt.
    - **Woodoku (Tripledot)**, another grid-based block puzzle, has contributed significantly to Tripledot's portfolio scale. Tripledot expects **25M+ DAU and ~$2B annual revenue**, showing the commercial potential of this sub-genre.
    - According to **Adjust (2024)**, puzzle games average ~30% Day-1 retention but drop to ~7% by Day-7. In contrast, match-3 games (e.g., Candy Crush, Triple Match 3D) sustain closer to ~11% at Day-7, thanks to clear goals and structured progression. This highlights why layering goal-driven design on top of block puzzle mechanics can significantly improve mid-term retention."
- Opportunity (Et Voila!)
    - Most block puzzle games are **endless** (Block Blast, Dropdom) and therefore lack a strong monetization or retention loop. While some like Woodoku have level-based progression, they lack depth, and there is a lot of scope for monetization.
    - By building on the **mass appeal of simple block mechanics**, while addressing the **retention and monetization gaps** with structured goals and progression, this concept aligns with hybrid casual trends and has strong **Day-1 and Day-7 retention potential**.

This presents an opportunity to innovate within this up-and-coming genre by **reimagining block puzzles with richer mechanics and better-integrated progression systems** that will have the **players keep coming back for more.**

Core Loop

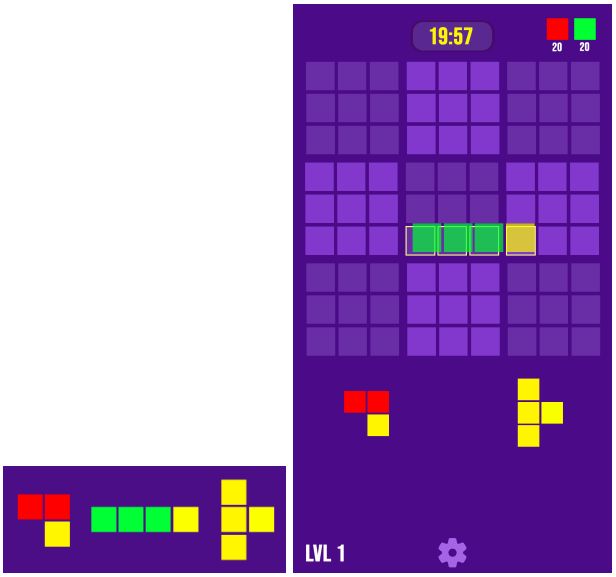


- **Place Blocks:** The player is given three block shapes at a time. They drag & drop onto a 9×9 grid.
- **Clear Blocks:** Filling a row, column, or a 3×3 sub-grid clears it.
- **Meet Goal:** Blocks have colors, and clearing enough of the required colored blocks fulfills the level's objective.
- **Clear Level:** Once the goal is achieved, the level is cleared, and the next is unlocked.

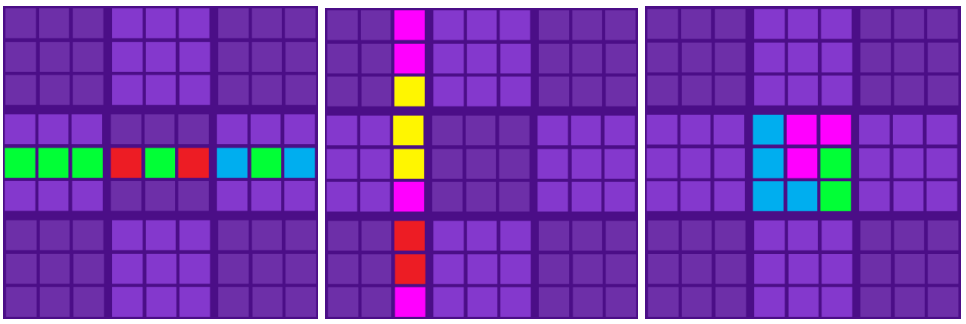
Content

- Gameplay
  - A **level** is a single unit of gameplay with a specific objective, mechanics, and constraints.
  - At the start of each level, the player is presented with a **9×9 grid**.

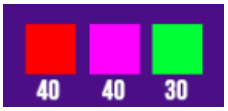
  - They receive **three random block patterns** (can contain one or more colors) in the **queue** at a time and must drag & drop them onto the grid to receive the next set.



  - **Blocks remain on the grid until a full row, column, or 3×3 sub-grid is completed**, which **clears those blocks**.



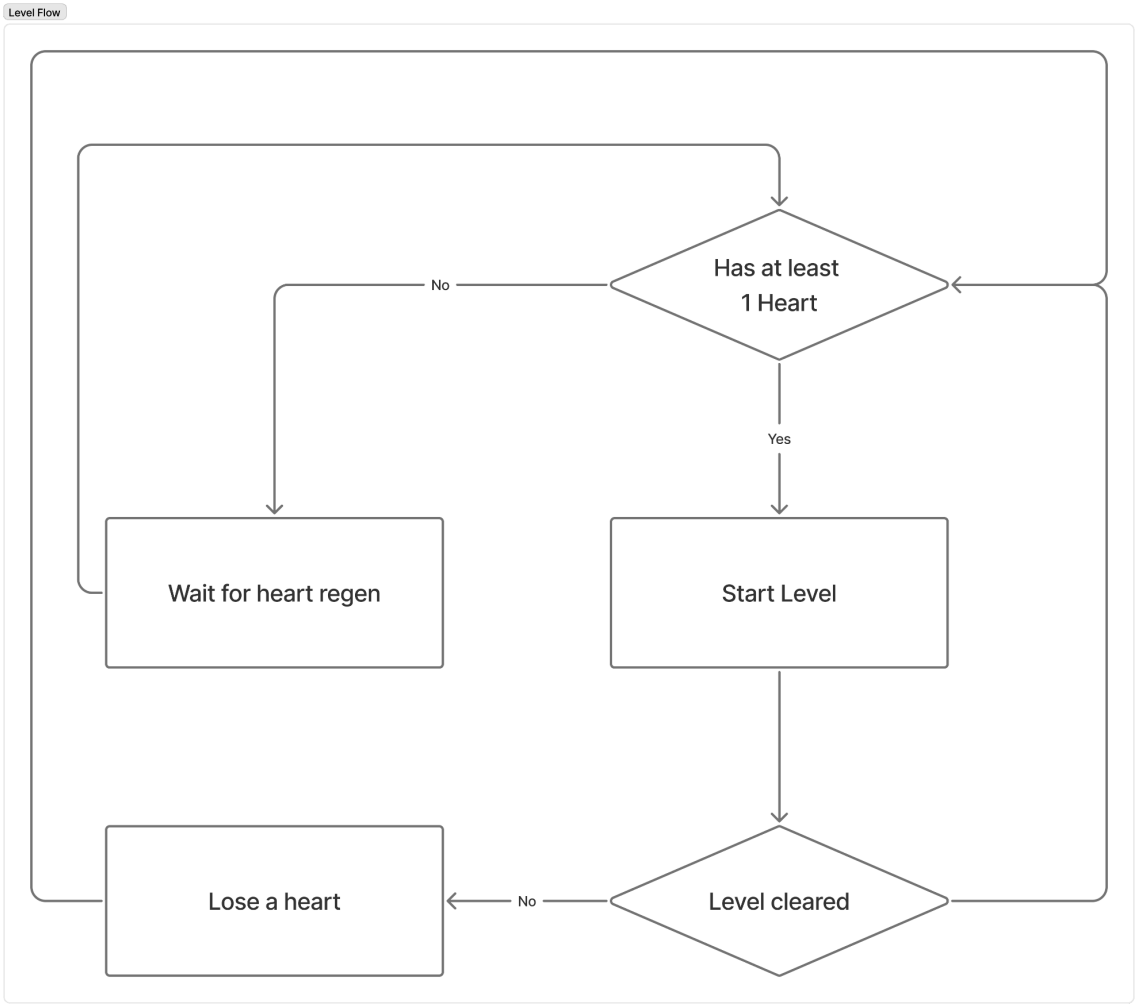
- Each level has a **goal** (e.g., collect 40 red blocks).



- Upon the start of the level, a **countdown timer** also starts at the top.

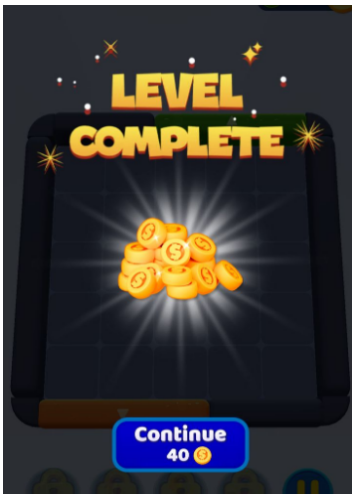
- The level ends in **Victory** when the goal is achieved, or in **Failure** when no more space is available to place a block or the timer reaches 0.
- **Completed levels cannot be replayed**. Players progress sequentially through unlocked levels.
- There will be **30 handcrafted levels** in this version.
  - If the player completed level 30, a “More levels coming soon” message will be visible with the play button disabled.

Level Flow



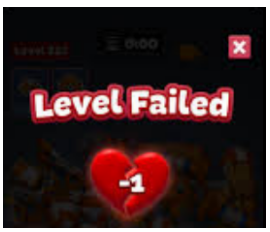
- **Level Start**:
  - The heart is the game's primary resource, regenerating over time.
  - The player must have at least one heart to start a level.

- **Level End**:
  - **Victory:** Achieved when the player fulfills the level's goal (e.g., collect required colored blocks).
    - Coins are rewarded based on how much time is saved from the level's total timer (more leftover time = more coins).



Time saved	Coins
>=70%	10 coins
>=40%	6 coins
<40%	3 coins

    - Thresholds are intentionally set so that maximum rewards are challenging but achievable for skilled play. Exact time/coin thresholds may be tuned during testing.
  - **Failure:**
    - Occurs when the grid has no valid space left to place all blocks in the queue.
    - Occurs when the level timer reaches 0.
    - On failure, **1 Heart is consumed**.



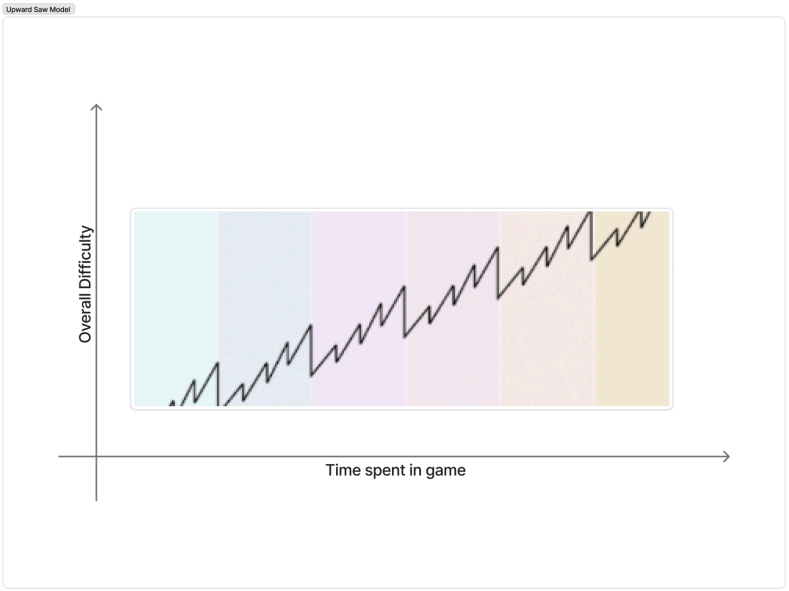
- Power-Ups
  - Power-ups are temporary tools that help the player overcome difficult situations during a level.
  - Each power-up will unlock after the player reaches the target level number.
  - Powerup can be purchased with coins (Spend 100 coins to get 3) or earned from event rewards.
  - When using a powerup, the timer pauses (except in the case of the stopwatch, where the powerup itself pauses the time)
  - There is no limit or cooldown on the usage of power-ups. Usage is limited by availability, which depends on coins/event rewards, ensuring balance.
  - The three power-ups are:

Wipeout	**Reroll**	**Stopwatch**
Fills and clears any random row or column, or a 3×3 sub-grid with blocks of random colors.	Discards all block patterns in the queue and asks to select a new queue from the three random sets.	Freezes the timer for 15 seconds.

- Mechanics
  - As the player advances through levels, new mechanics are gradually introduced to increase variety, challenge, and engagement. For a 3-week development cycle, we will have three mechanics:
    - **Frozen Blocks**
      - Spawns on the grid at the start of the level.
      - Can spawn in the queue.
      - Participates in clearing.
      - Using them in a clear would convert them into a normal block.
      - Clearing an adjacent cell doesn't affect it.
    - **Frozen Cells**
      - Spawns on the grid at the start of the level.
      - Cannot participate in clearing, and blocks can't be placed in it.
      - Any clear on an adjacent cell will convert it into a normal cell.
    - **Chained Blocks**
      - Spawns on the grid at the start of the level.
      - Can spawn in the queue.
      - Participates in clearing.
      - Appears in groups of two or more blocks.
      - Individual blocks can participate in clearing, but won't get cleared.
      - All chained blocks must be cleared together to be cleared.
- Difficulty & Progression
  - Early levels focus on teaching the core loop, mid-game levels introduce mechanics and power-ups, and late levels combine everything.
  - **Difficulty Knobs**
    - Goal requirements increase progressively to ramp up the challenge naturally.
    - The timer starting value will keep varying from a maximum of 15 minutes to 5 minutes to adjust the difficulty.

- Changing the number of colors in a level can influence both the objective challenge and the player's perceived difficulty, as more colors increase visual complexity and planning demands.
- The ease with which a block pattern in the generated queue can be placed on the grid.
- The probability of a block pattern in the queue having the same color as the goal can be used as a difficulty knob.

- **Follow the upward-saw difficulty model:**

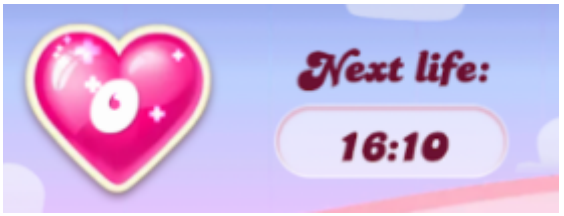


- After every 3-5 levels, there would be a comparatively easier level. Easier in terms of:
  - Goal requirements
    - Fewer color types
    - A lesser count of each color type
  - A lower frequency of certain colors in the block patterns appearing in the queue for a level.
  - Lower density of mechanics
  - More block patterns in the queue that can easily be placed to clear blocks.
  - Increased starting timer value.

- **Overall Progression & Unlocks:**

Levels	**Mechanics**	**Power-Ups**	**Features/Events**	**Block Goals**	**Starting Timer**
1	None (Tutorial)	None	None	20 blocks	20 min
2-5	None	Wipeout	Daily Rewards	30-80 blocks	10-15 min
6-10	Frozen Blocks	Reroll	Spin Wheel	80-150 blocks	8-15 min
11-20	Frozen Cells	Stopwatch	None	100-250 blocks	5-15 min
21-30	Chained Blocks	None	None	200-500 blocks	5-10 min

- Economy
    - **Currency**
        - Coins are the primary soft currency of the game.
        - **No cap** on storage.
        - **Sources**:
            - Level victories
            - All players will have 200 coins by default at the beginning.
            - Event completions.
        - **Sinks**:
            - Purchasing power-ups.
            - Replenishing hearts (only when at 0).
    - **Resource**
        - Represents player lives/energy.
            - The player cannot start a level if they have zero hearts..
        - **Soft cap**: 5 hearts.
        - **Sources**:
            - Regeneration: +1 heart every 30 minutes until the cap is reached.



            - If at cap, regeneration is paused until a heart is consumed.
            - Players can exceed the cap temporarily by:
                - Earning hearts from events.
            - From event rewards.
            - With coins (Upon reaching 0, a button will appear to replenish five lives by spending 100 coins).

        - **Sinks**:
            - A Heart is consumed/lost/deducted when the player fails a level.
- Features/Events
    - To support the required retention goals, **two light engagement systems** are included that will help with D1 as well: **Daily Rewards** and a **Spin Wheel**.

- Both systems are visible in the main menu from the start, but appear **locked** with their respective unlock level displayed, ensuring players anticipate them as progression rewards.

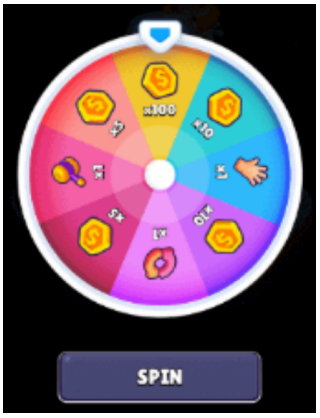
- **Daily Rewards**
  - **Unlocks at level 5:** It is introduced once players complete the tutorial and have their first core gameplay experience. It provides a light retention hook without distracting from early learning.
  - Players receive a free login reward for each consecutive day played, from **Day 1 through Day 7**.
  - **Progression:** Rewards must be claimed daily to advance. Missing a day resets the streak to Day 1.
  - **Reset:** After claiming the Day 7 reward, the cycle resets to Day 1 the following day.
  - **Visibility:** All seven rewards are visible upfront, so players know what's coming.

  - **Claiming:** The reward pop-up appears automatically on the first launch of the day. Players tap once to claim, followed by visual feedback and a sound effect.
  - **Rewards:** Fixed per day.

Day	Reward

1	10 Coins
2	5 Hearts
3	1x Random Power-Up
4	20 Coins
5	3x Random Power-Up
6	5 Hearts
7	50 Coins

- **Spin Wheel**

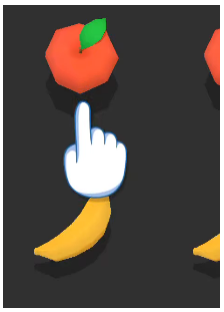


  - **Unlocks at level 10:** It is added after players are comfortable with multiple mechanics and power-ups, introducing an engagement feature at a natural short-term milestone, which intends to motivate short bursts of play.
  - **Availability:** Can be used after every 5-level clears.
  - **Trigger:** Automatically presented once the milestone is reached. As long as a spin is available, the panel will always pop up in the main menu before players can continue into new levels, ensuring consistent visibility.
  - **Safety:** Closing the game mid-spin does not consume the spin or grant rewards.
  - **Rewards:** Provides **coins, hearts, and power-ups**, delivered through a short spin animation and reward feedback sequence.

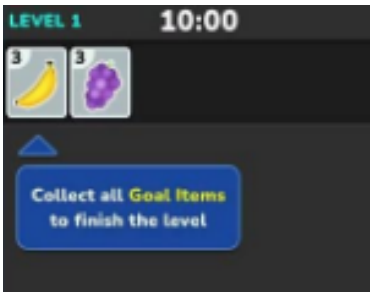
Reward	**Quantity**	**Probability**
Coins	10	15%
Coins	25	6%
Coins	50	3%
Hearts	1	25%

Hearts	3	15%
Hearts	5	6%
Wipeout Power-Up	×2	10%
Reroll Power-Up	×2	10%
Stopwatch Power-Up	×2	10%

- FTUE (First-Time User Experience)
  - **Level 1 Tutorial**
    - **Predefined Queue**
      - The first three block patterns in the first three queues are scripted and must be placed exactly as shown.
      - A finger animation drags from the queue block to the target cell.



      - No other cell inputs are accepted until the correct placement is made.
    - **Handholding Flow**:
      - **First Queue**: Teaches placement + row clearing + goals.
        - When placed, the row clears.
        - A short tooltip explains clearing a row and collecting for the goal.

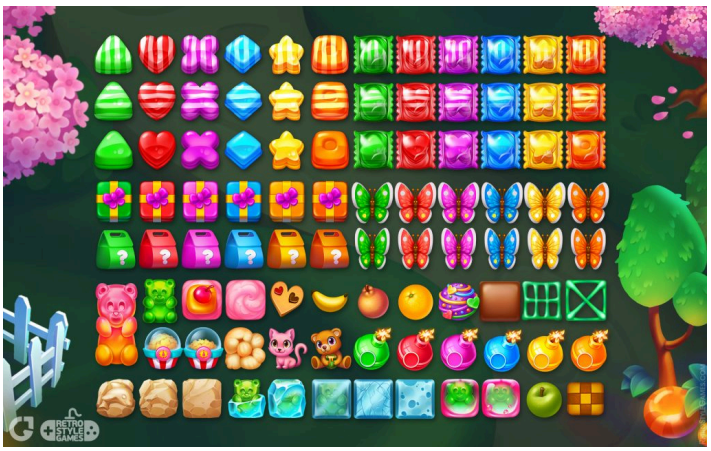


      - **Second Queue**: Demonstrates column clearing.
        - Column clears.
        - A short tooltip explains clearing a column and collecting for the goal.
      - **Third Queue**: Demonstrates 3×3 grid clearing.
        - Dedicated 3×3 slot clears.
        - A short tooltip explains clearing a dedicated 3x3 section and collecting for the goal.

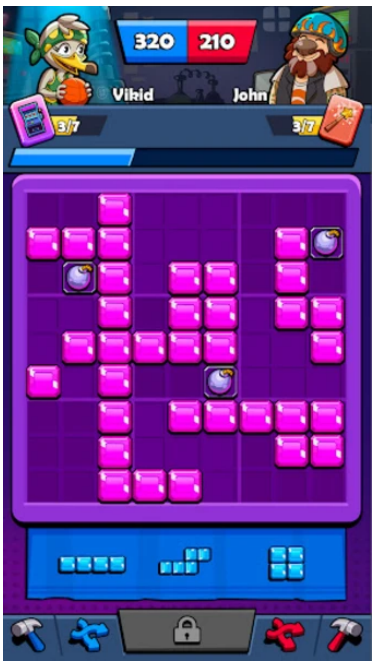
            - **Goal Integration**:
                - Each clear also contributes toward the tutorial level's **block collection goal**.
                - After the first three queues, the player sees the **goal counter update** (e.g., "10/20 red blocks collected").
        - **Player Agency**:
            - After these guided moves, the queue is now randomized.
            - The player is left free to place blocks and finish the remaining goal.
            - The setup ensures clear translation of the core loop and ensures victory.
        - **Reward Moment**:
            - On completing Level 1, the player gets acquainted with coins as rewards, reinforcing the idea that success = reward.
    - **Power-Up Introductions**
        - **Unlock Moment**:
            - When a new power-up is unlocked (per progression table), the player receives **one free copy** of that power-up, and during the handholding, it is consumed.
            - A dedicated **mini-tutorial prompt** introduces it.
        - **Handholding Flow**:
            - A scripted scenario is presented right at the start of the level, where the board is intentionally "stuck" (no easy placements).
            - The power-up icon flashes, and a **finger animation** points to it.
            - Player taps the power-up and is guided on how to use it.
            - The player must use it exactly as instructed.
            - The resulting effect is explained with a tooltip.
        - **Agency**:
            - After the forced use, the player regains normal control.
            - The rest of the level is beatable without requiring additional power-ups, but the experience leaves them with knowledge of how to use it.
        - **Reward**:
            - After completing the tutorial, the player is rewarded with 3 of those power-ups.
    - **Mechanic Introductions**
        - **Unlock Moment**:
            - When a new mechanic (e.g., Frozen Blocks, Frozen Cells, Chained Blocks) is introduced, the level is **designed to showcase it clearly**.
            - A **mini-tutorial scenario** highlights the mechanic without overwhelming the player.
        - **Handholding Flow**:
            - A scripted board setup appears that forces interaction with the new mechanic.
            - A **finger animation** or highlight shows the mechanic in action (e.g., which blocks are frozen, how chained blocks must be cleared together).
            - Tooltips explain the mechanic in **one concise line** (e.g., "Frozen Blocks convert to normal when cleared in a row or column").
            - The player must complete one or two interactions with the mechanic exactly as instructed.
        - **Agency**:
            - After the initial demonstration, the player is free to play the level in their own way and complete it.

Visuals & Audio

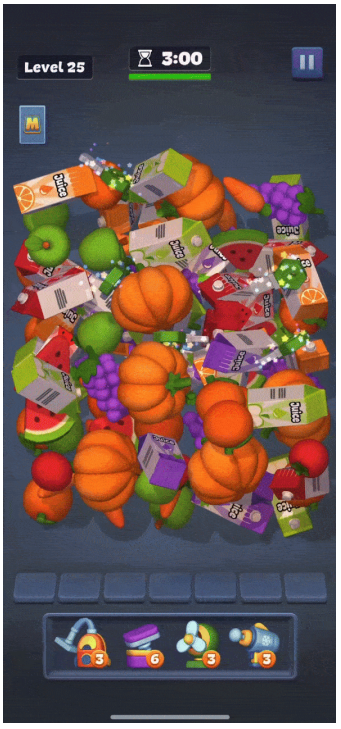
- **Visuals**
  - **Theme**:
    - Stylized cartoon realism.
    - Blocks and backgrounds feel playful, with exaggerated shapes grounded in a semi-realistic lighting/shading style.



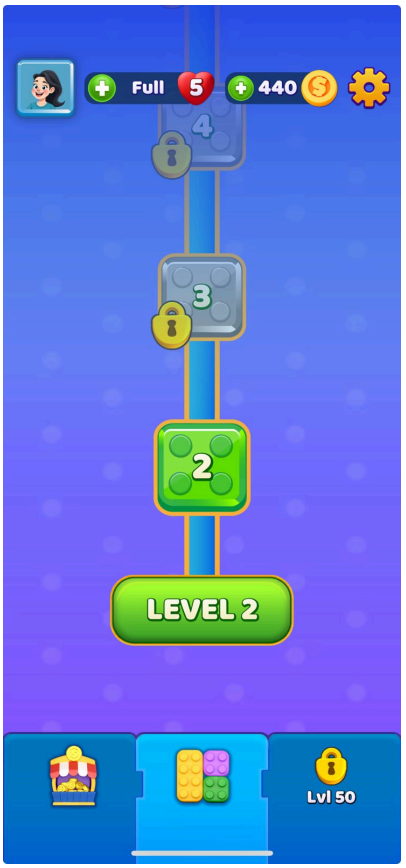
  - **Textures**: Shiny and glossy surfaces for blocks, subtle reflections, and soft shadows to give depth.

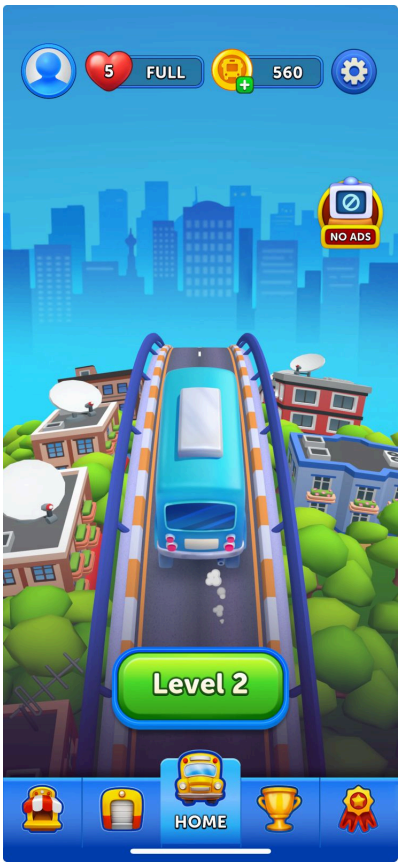


- **Animation**:
  - Bouncy animations for game elements, UI elements, and UI Panels.
  - Subtle squash-and-stretch on clearing rows, columns, and 3×3 sections.
  - Power-ups and special clears have distinct animations to communicate impact visually.



- **UI**: Minimalist and clean, with bright, readable fonts. Buttons and panels have rounded corners.





- **Audio**
  - **Background Music**: Playful and soothing loops, non-distracting. Should **loop seamlessly** for long sessions.
  - **Sound Effects (SFX)**:
    - Block placement: soft pop.
    - Row/column/3×3 clears: satisfying swoosh or pop.
    - Power-up usage: distinctive, attention-grabbing but not annoying.
    - Goal completion: Sparkle chime.
    - Button click: soft snap.
    - Feedback and warning sounds.

Analytics & Retention Tracking

- These analytics events are designed to measure the success of the **FTUE**, **difficulty curve**, and **engagement systems** (Daily Rewards, Spin Wheel). They focus only on retention and player behavior, and monetization is excluded from this scope. (Every event must carry a timestamp.)
- Session & Retention
    - **Game_Start**: Marks player launching the game + country name.
    - **Game_Quit**: Marks player closing the app.
    - **Day_Login**: Marks the player logging in on a given day + local time.
    - **Total_Daily_Login_Count**: Marks how many days the player has played.
    - **Continuous_Daily_Login_Count**: Tracks consecutive daily logins.
    - **Max_Continuous_Daily_Login_Count**: Tracks the longest streak achieved.
    - **Session_Length**: Time between Game_Start and Game_Quit.
    - **Session_Count**: Distinct play sessions per day.
- FTUE
    - **Tutorial_Start**: Marks the start of Level 1 tutorial
    - **Tutorial_Complete**: Marks the clearing of the Level 1 tutorial.
- Level Flow
    - **Level_Start**: Marks Level start + level number.
    - **Level_Clear**: Marks victory + level number, time taken, coins earned, and powerups used.
    - **Level_Fail**: Marks failure + timer data + powerups used.
    - **Level_Fail_Count**: Marks the number of times a level is failed.
    - **Level_Complete**: Marks success + timer data.
    - **Total_Level_Win_Count**: Marks the total number of levels cleared.
    - **Total_Level_Fail_Count**: Marks the total number of levels failed.
- Progression & Economy
    - **PowerUp_Use**: Tracks the type + level it is used in + timer data.
    - **PowerUp_Purchased**: Power-up type purchased + remaining coins + timer data.
    - **PowerUp_Tutorial_Start**: Marks the start of the powerup's tutorial
    - **PowerUp_Tutorial_End**: Marks the clearing of the powerup's tutorial
    - **Mechanic_Tutorial_Start**: Marks the start of the mechanic's tutorial
    - **Mechanic_Tutorial_End**: Marks the clearing of the mechanic's tutorial
    - **Lives_Purchased**: Marks purchase of lives + remaining coins.
- Engagement Systems
    - **DailyReward_Claim**: Marks claiming of the daily login reward + day number.
    - **SpinWheel_Spin**: Marks the triggering of spin + level number + reward.