Game Design Document: Dollhouse Leak Fixer

This document outlines the concept, mechanics, and design elements for the retro-inspired game **Dollhouse Leak Fixer**. The game takes inspiration from ZX Spectrum classics such as Pajamarama, featuring a dollhouse-style cutaway house view, pixel art graphics, and simple but challenging mechanics.

Core Mechanics
- Player movement: Four directions (left, right, up, down).
- Interactions: One button to pick up and release/use objects.
- Inventory: Player can carry one item at a time.
- Objective: Fix leaks in different rooms using appropriate tools.

Objects & Fixing Tools
Each room may require different tools to stop or delay leaks. Tools are obtained from the kitchen's "production line" that cycles through random items.

- Cooking Pot: Catches drips temporarily.
- Adhesive/Putty: Seals cracks or pipes.
- Wrench: Tightens valves or bolts.
- Rag/Cloth: Absorbs small leaks.
- Wooden Plank: Covers holes or cracks.

Rooms & Leak Scenarios
- **Kitchen:** Produces random tools for the player to collect.
- **Bedroom:** Ceiling leaks; fix with pot or rag.
- **Bathroom:** Pipe bursts or toilet overflow; fix with wrench or adhesive.
- **Living Room:** Crack near window; fix with plank or adhesive.
- **Attic:** Water tank leaks, critical to repair or whole house floods faster; fix with wrench or adhesive.

Flooding Mechanic
- Each room has a flood meter represented visually by rising water.
- Water level increases over time if leak is not fixed.
- Once full, the room is unusable and locked out.
- Attic leaks accelerate flooding in all rooms if left unattended.

Victory & Defeat Conditions
- **Victory:** Endless survival mode; score based on time survived and leaks fixed.
- **Defeat:** All four main rooms become completely flooded.

HUD & Interface
- **Score:** Displays survival time or leaks fixed.
- **Carried Item:** Shows icon of the tool currently held.
- **Flood Indicators:** Rising water or bars inside each room.
- **Kitchen Supply:** Shows the tool currently available to pick up.
- **Attic Warning:** Blinking red drop icon when tank is leaking.

HUD & Interface Sketch

HOUSE CUTAWAY VIEW
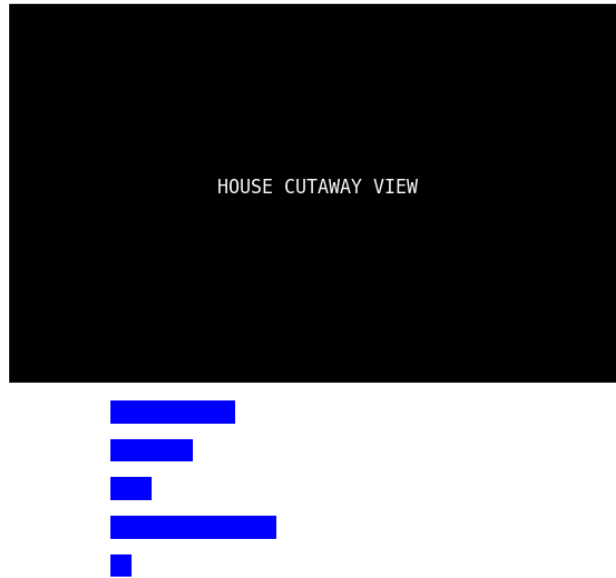
ATTIC LEAK!

Game Loop
1. A random leak appears in one room.
2. Player goes to kitchen, grabs an item, and travels to the leaking room.
3. Player uses the item to fix or delay the leak.
4. New leaks appear randomly over time in other rooms.
5. Player prioritizes which leaks to fix first.
6. Flooding escalates; rooms fill up and lock out.
7. Game ends when all rooms are flooded.