**Game Design Document (GDD)**

**Game Title: Bubble Brawl**

**Game Overview**

**Genre**: PvP Arena, Action, Strategy  
**Platform**: PC   
**Players**: 2 local multiplayer)  
**Perspective**: Top-down

**1. Game Concept**

In **Bubble Brawl**, players engage in a fast-paced PvP arena where they spawn and control different types of bubbles (Attack, Steal, and Food). These bubbles interact with each other in unique ways, providing a strategic layer to gameplay. The goal is to outmaneuver and outsmart the opponent by utilizing bubbles effectively to break their defenses, steal their resources, and grow stronger.

**2. Gameplay Mechanics**

**2.1 Core Gameplay Loop**

* Players spawn bubbles from their designated points within a closed room.
* **Attack Bubbles**: Break enemy bubbles on impact. Can grow stronger by interacting with food bubbles.
* **Steal Bubbles**: When they hit the opponent's spawn point, they reduce the enemy's bubble count by 10 while increase own bubbles by 10.
* **Food Bubbles**: Explode after contact with an attack bubble, or after expanding to a certain size. The food burst strengthens attack bubbles that pass over them.

**2.2 Movement**

* Players spawn their 3 type of bubbles.
* Bubbles may get **slower or faster** after each bounce, depending on the final decision.
* Bubbles are spawned randomly within a defined angle towards the enemy.

**2.3 Bubble Growth & Effects**

* **Attack Bubbles**: Grow in size (e.g., 5 to 15) when they pass over food bubbles. They become stronger and more capable of surviving multiple collisions.
* **Food Bubbles**: Explode on collision with attack bubbles or after expansion, releasing food that powers up attack bubbles.
* **Steal Bubbles**: Not affected by food, they simply steal 10 bubbles from the opponent’s pool when hitting the spawn point and award them to the opponent.

**2.4 Scoring & Resources**

* Players start with **100 bubbles**. They must choose between spawning Attack, Steal, or Food bubbles.
* **Points** are scored for:
  + Breaking an opponent's bubble with an attack bubble.
  + Successfully stealing 10 bubbles.
  + Eating food bubbles and powering up attack bubbles.
* The game could be based on **rounds**, with the first player to score a set number of points winning the match.

**3. Arena Design**

* **Closed Room**: A box-shaped arena with walls where bubbles bounce off.
* **Player Spawn Points**: Each player has their own designated point where their bubbles spawn.
* The arena may have **randomized layouts** or fixed obstacles (such as walls or barriers) to increase the tactical depth of each round.

**4. Player Controls**

**4.1 Player Movement**

* Players will use QWE for player 1, and 789 for player 2.
* Q/7 – Attack bubble, W/8 – Steal bubble, E/9 – Food bubble.

**4.2 Bubble Controls**

* The player chooses which type of bubble to spawn: Attack, Steal, or Food.
* **Attack Bubble**: Spawns and moves in a random direction at a set speed.
* **Steal Bubble**: Spawns and moves in a random direction at a set speed.
* **Food Bubble**: Spawns and moves in a random direction at a set speed.

**5. Visuals and Art Style**

* **Art Style**: Bright and colorful, cartoonish style with simplistic but expressive character designs for the bubbles.
* **Arena Design**: Simple, with walls and minimal obstacles to keep the focus on the bubble gameplay.
* **Bubble Animations**: Smooth animations for bubbles growing, popping, or bouncing.
* **Particle Effects**: When bubbles explode, there should be satisfying particle effects to emphasize their impact.

**6. Audio Design**

* **Bubble Pop Sound**: A satisfying "pop" sound when bubbles break.
* **Bubble Growth Sound**: A soft sound as bubbles grow in size.
* **Background Music**: Light, energetic music to match the fast-paced gameplay.
* **Sound Effects**: Randomized sounds for when food bubbles explode or when steal bubbles hit their targets.

**7. Game Modes**

**7.1 Standard PvP Mode**

* A best-of-three round match.
* Players compete to break each other's bubbles and steal resources.
* Time-based rounds with a possible score limit (e.g., 100 points).

**7.2 Timed Mode**

* Players have a set amount of time (e.g., 5 minutes) to score as many points as possible.
* The player with the most points at the end of the timer wins.

**8. Progression & Unlockables**

* **Unlockable Bubble Types**: Over time, players could unlock special bubble types with unique mechanics (e.g., split bubbles, larger attack bubbles, etc.).
* **Customization**: Allow players to unlock different **bubble skins** or **visual effects** based on performance or achievements.

**9. Technical Details**

* **Engine**: GameMaker Studio (GML)
* **Resolution**: 1080p (or configurable)
* **Input**: Keyboard, controller support
* **Multiplayer**: Local multiplayer (online could be added later)