**Level Design Document (LDD) for Flappy Shark**

**Level 1: Coral Reefs**

**1. Objective**

* **Primary Objective**: Navigate through the coral reef environment, avoiding mines and other obstacles while accumulating points.
* **Secondary Objective**: Collect hidden treasures scattered through the level for bonus points.

**2. Environment**

* **Setting**: Vibrant and colorful coral reefs.
* **Parallax Background Layers**:
  + **Layer 1**: Foreground with detailed coral structures.
  + **Layer 2**: Mid-ground with various fish swimming at different speeds.
  + **Layer 3**: Mid-ground with slower-moving, larger marine life (like manta rays).
  + **Layer 4**: Background with fixed coral structures and sea plants.
  + **Layer 5**: Far background showcasing the distant ocean and sunlight piercing through the water.

**3. Challenges**

* **Mines**: Randomly spawned mines that the player must avoid.
* **Currents**: Dynamic currents that affect the shark's movement speed and direction.
* **Terrain**: Uneven terrain that requires careful navigation.

**4. Rewards**

* **Treasures**: Hidden treasures that grant bonus points when collected.
* **Safe Zones**: Areas where the player can rest and not encounter mines.

**5. Music**

* **Playlist**: A selection of calm and serene tracks to complement the vibrant underwater setting.

**6. Assets Needed**

* **Art**:
  + Coral assets
  + Fish and marine life assets
* **Music**:
  + Underwater-themed music tracks
* **Sound Effects**:
  + Bubble sounds
  + Swimming sounds
  + Explosion sounds (when hitting mines)

**7. Programming**

* **Adaptive Spawner System**: System to spawn mines and treasures dynamically.
* **Parallax Background System**: A 5-layer system to give depth to the environment.

**8. Level Progression**

* **Start**: The player starts in a safe zone with no obstacles.
* **Mid**: The difficulty gradually increases with more mines and dynamic currents introduced.
* **End**: A challenging section with a high density of mines leading to the level's endpoint.

**9. Playtesting**

* **Goal**: To ensure the level offers a balanced difficulty curve and that all elements work harmoniously.
* **Feedback Loop**: Regular feedback from play testers to iterate and improve the level.