Pool Manager

# A Tree Hierarchy that contains:

|  |  |  |  |
| --- | --- | --- | --- |
| CheckBox | Tier | Name | Definition |
| If this box is checked, all changes affect all children. | 1st Tier | Pool Manager | Empty gameObject used to hold empty gameObjects |
|  | 2nd Tier | Spawner(Parent) | The Spawner of the Child Object(s) |
|  | 3rd Tier | ObjectToSpawn(Child) | The object that will be spawned. |

# Legend:

* Event: an in-game response to an act that occurred.
* Action: A player triggered event.

What does our game need?

## Bullets

* Multiple types of bullets
* Enabled : On Trigger, spawn new object.
* Disabled : When lifeSpanLeft hits 0.
  + Based off LifeSpan (float value to determine life left)

## Enemies

* Multiple types of enemies (Event)
* Enabled : (Event) If Conditions are met.
  + If Wave Amount Left > 0
    - If there are still enemies needed to finish the wave.
    - Example: **GOAL**: Wave 2 ends after 5 enemies are defeated.
      * Defeated Enemies: 1
      * Current Enemies Alive: 2
      * Allowed enemies in scene per wave: 3
        + 2 are alive, 3 is max, 1 more enemy may be spawned.
      * Spawn a new
  + If WaveEnemyLimitLeft > 0
  + If Spawn Timer <= 0
    - Reset spawnTimer if enemies may still be spawned.
* Disabled : (Event) If enemies dies
  + If Health hits 0 or below
  + If game ends

## Weapons

* Multiple types of enemies
* Enabled : (Event) On Trigger, On random enemy death.
* Disabled : (Action) On Character pick-up.
* Restart : Position,

Pseudo Code

Values