1. Fix bugs with the game

* ~~Error with the inspector where pressing ‘c’ does not display the coordinates of the tiles. May be a problem with the Input() method.~~
* Problem with multiple object pools causing the instantiation of towers to break. Need to find out how to look through all tile paths to know if placing the tower will block the path or not. This is ONLY A PROBLEM with finding own path, so solution *should* be simple.
  + Resolve multiple object pool errors

1. ~~Add comments to the scripts & tidy up scripts~~
2. Make the game good

* ~~Instead of a this or that approach to pathfinding, why not both?~~
  + ~~Many paths for the enemies to take. Different enemy types will pathfind based on predetermined path & others will find their own path.~~
* Add more than one enemy and more than one tower. It’s a freakin tower defence game!
* UI overhaul
  + Options to display buildable towers, show previews of where the tower can be built, & show a dummy tower to display it on the screen without committing yet.
  + More intuitive feedback. If player tries to place a tower in an unplaceable spot, they should receive negative feedback.
  + Option to pause the game, view stats, see enemy health (& tower health?), & much more.
  + Smooth ui is cool ui. Don’t over do it tho.
  + Clicking on towers & tower previews should show the tower’s range.
* Level design
  + Basic level design. Can set up wave system (will require making the waves)
  + Level 1: basic setup, nothing special that’s different from other tower defense games
  + Level 2: new tower? Ability? Enemy? Similar setup as level 1 with something different.
  + Level 3: add multiple paths for enemies to take (branching paths). Introduce walls.
  + Level 4: introduce enemies that pathfind on their own – they do not follow the normal path.
  + Level 5: new level format. The threat no longer comes from one place, but rather many places at once. There will be multiple paths with ui showing what enemies will be coming from where. Still defending your ‘castle’ center, but threat will loom from many directions. Add new feature: gold mines. Add new enemy type: idk probably goblin because Im unoriginal and they want your gold mines & stuff of similar sort.
  + Idk add an endless or something
* Add satisfying feedback to tower actions & enemy actions; make the game feel more alive.

1. Completely revamp how some things work.

* ballista prefab uses a particle system to instantiate projectiles. This is horrible for many reasons & it would be better to instantiate a projectile prefab from the tower & give it a velocity. Allows for the ability to easily control damage effects of the projectile & doesn’t rely on particle system in a very confusing way.
  + Moreso, instead of instantiating a projectile, use a projectile pool to reduce instantiation. Since towers have a firing rate this *should* be easy to code.
  + Target lock on ballista is nonexistent and should be. (Could so something similar to btd to set its target lock to closest, furthest, current, random, etc.)
* Win condition should be changed to completing waves. Waves should not be endless.
* Lose condition should not be running out of gold (bs lose condition). Simple lose condition will be castle center being destroyed. Castle will have a health pool instead of a gold pool & running out of health will lose the game. Health pool & gold pool will be two separate systems.

1. Enemy/Tower designs

|  |  |
| --- | --- |
| Enemy | Tower |
| * Current ram in the game. Moderate health, slow, moderately punishing | * Castle center. Im ripping this right out of Thronefall * Ballista. Medium range, medium damage. Primary usage: its range * Cannon. Low range activation, but projectile continues for a bit, medium damage. Primary usage: pierces targets * Mortar. High range, high damage. Deals splash damage, but slow to reach destination. Can set its target tile manually. |