Game Design Document

Defense

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Synopsis  
**Storyline**Your base is being attacked by outsiders and you as commander need to defend the base.

Target Audience  
The game is focused on the strategic and agile aspect of the player. Because the game needs to have a wide range audience, it has difficulty levels that the player can adjust.

The game is made for 16 years old boys/girls to 70 years old men/women.

Gameplay  
By clicking on the field, arrows will be fired in the direction of the click. Enemies are trying to get to the player’s base and destroy it. If the base is destroyed, it is game over. When all the days are survived, the game will be won. After every wave and day, the enemy becomes stronger.

**Mechanics**

* *Coins*

By killing enemies, you get a given amount of coins. The amount of coins depends on the enemy you kill, how many waves and how many days you have left. These coins can be used to upgrade your base.

* *Different kind of enemies*
  + Warrior
    - Attacks the base from close range
  + Archer
    - Attacks the base from a distance with arrows
  + Armored archer
    - Same as archer, but harder to kill and deals more damage
  + Giant
    - Very strong close-range unit with a lot of HP
  + Boss
    - Every last wave of the day, the boss spawns. This unit is really hard to kill and deals a lot of damage
* *Upgradable base*

After every day, you will be able to upgrade your base at an upgrade menu

* + Available upgrades
    - Main base
      * More HP
      * More damage output
      * Higher attack speed
      * Higher projectile speed
      * 4x archer that shoots automatically
      * 1st base extension, gives a lot more HP
        + 1x archer that shoots at your mouse click
        + 2x auto-archer that shoots enemies automatically
      * 2nd base extension, gives a lot more HP
        + 1x archer that shoots at your mouse click
        + 2x auto-archer that shoots enemies automatically
* *Waves*
  + ~~Every wave lasts for a given amount of seconds~~
  + Every wave lasts till all the given number of enemies has been killed
  + After every wave, there is a bigger chance for stronger enemies to spawn
  + Every last wave a boss spawns
* *Days*
  + Every day lasts for a given amount of waves
  + After every day, the enemies become significantly stronger
* *Interactable defense by clicking*

By clicking on the field, you fire arrows at the given direction. These arrows damage the enemies, which will eventually kill them. It is necessary to keep shooting the enemies, before they get to your base and destroy it.

Rules

**Player**  
- The player is only able to shoot in the direction in front of the base  
- The player can only interact with the core gameplay and main, pause and upgrade menus.  
- The amount of damage the player deals, depends on the base amount + the amount given by the current upgrades  
- The attack speed of the player, depends on the base amount + the amount given by the current upgrades  
- The projectile speed of the player, depends on the base amount + the amount given by the current upgrades

**Enemies**- The enemies can only spawn till the timer of the last wave is finished  
- The enemies only spawn at the edge of the screen in front of the base  
- The amount of coins the enemy gives when killed, depends on the type of enemy and how many waves and days are left  
- The amount of HP the enemy has, depends on the type of enemy  
- The amount of damage the enemy deals, depends on the type of enemy  
-The way the enemy attacks, depends on the type of enemy

**Base**  
- The maximum amount of HP the base has, depends on the base amount + the amount given by the current upgrades  
- The base is only repaired after each day  
- The base can only be upgraded after each day  
- An auto-archer, targets 1 enemy till it is dead. After that, it switches target  
- The damage an auto-archer deals, is ½ of the damage the player deals  
- The attack speed of an auto-archer, is ½ of the attack speed of the player

Game World  
The game is set in a fantasized version of the middle ages, where giants exist. There are a couple civilizations that are being threatened by outsiders.

Game Flow  
The game gradually becomes harder every wave and every day. At every last wave of the day, you have a final battle with a boss unit. After each day you can upgrade your castle, so you become stronger and are able to defeat the always becoming stronger enemies.   
  
If you lose the game, you get the option to replay from the day you were on or to return to the main menu and lose all of your progress.

If you win the game, you get some info of your game session and the option to return to the main menu.

Controls  
By using the mouse, the entire game, including all the menus, can be controlled and navigated.

Genre  
The game is a ‘**tower** **defense’** game, where you need to defend your base from incoming enemies. The goal is to survive all the given waves and days, by interactable defense and base upgrades.

Platform  
For now the game is entirely made in **Unity** and only playable on **PC**, but future plans include but are not limited to **mobile**.