

Kingdoms Last Stand

Dung Thai, Minh Phan, Justin Sim, Quynh Ai Nguyen

Introduction:

We plan to build a tower defense game. In this game, one shall be able to select various heroes with different characteristics. Those heroes will have the ability to walk straight and attack when the enemies are within the range. The goal is to protect your tower as well as defeating the tower on the enemies' side.

As a standard setup for our game:

- One shall be able to select the difficulty of the levels from easy to hard. Each level will consist of four heroes and one power-up that can be selected. The characters will be able to walk toward the opponents' tower and will be able to attack when seeing enemies within the range. There will be three different lanes that allow one to choose in order to place the heroes.
- The game shall consist of different waves of enemies for each level. It will start out with a slow wave with fewer enemies, allowing the player to have time to prepare. As the game continues, there will be higher waves with more enemies. It shall interchange between higher and lower waves throughout the game until either the defensive or offensive tower falls.
- The waves will also act jointly with the background setting. There will be two different background settings per level, which includes a morning and night setting. The morning setting is for the lower waves of enemies and the night setting is for the higher waves for each level. The background setting shall interchange between morning and night until the game is over.
- The game will be based on currency. It will start out completely charged up and the amount will vary depending on the difficulty of the level. Every time the player selects a hero, the elixir shall update based on the cost of the character. The elixir shall be on a timer to recharge itself. If the elixir is full it will not continue to recharge.

Fireballs powerup:

- One shall be able to select the fireballs powerup and select the lane to discharge it from.
- Once the fireballs are discharged, it will wipe out all the enemies that are on that lane.
- The powerup will be able available for the player to use when the elixir is fully charged.
- The elixir will start out empty and will boost up based on a separate timer.
- The elixir shall recharge after each use.

Heroes:

- Knight: This hero has the elixir cost of four, HP of four, and being to create damage of four. He is the strongest.
- Lancer: This hero has the elixir cost of three, HP of three, and damage of three.
- Archer: This hero has the elixir cost of two, HP of two, and damage of two.
- Swordsman: This hero has the elixir cost of two, HP of two, and damage of two.

Enemies:

- Zombie King: This enemy has a HP of four, and damage of four. He is the strongest.
- Warlord: This enemy has a HP of two, and damage of two.

Interaction: The interaction in our game will be based on collision.

- The heroes shall be able to detect the enemies within the range and attack. After the collision, the HP of each character will be updated based on the damage that the opponents created. For example, if Lancer collides with Warlord then Lancer's HP will be updated to one left. Since Lancer can create three points of damage and Hand Cannoneer can only create two damage points, Warlord would die while Lancer has one health point left. Another example would be two characters with the same HP and damage points collide, then both of them would die.
- In the case where the HP of that character reaches the end, the character will disappear.
- When the characters encounter the castle, it shall be able to attack and the remaining HP shall be determined by the damage points that the characters can create.

Control:

- Most of our control will be mouse-driven clicks. The player shall be able to click on the hero and the location on the board that they want to place their heroes. The player shall be able to click on the special power-up.

Sounds:

- Music starts slow then it gets more dramatic as the level of the waves gets higher.
- Sound effects when enemies attack each other and also the tower
- Fireballs sound effects when using the special power-up

Extras:

- Having the option to select different special power-up at the beginning of each game
 - Lighting - damage half of all enemies' HP
- Having the option to select different characters before entering the battle.
 - Select one from the characters with currency four

- Select one from the characters with currency three
- Select two from the characters with currency two

Prototype:

- Ideally, we will have the starting points background with three different levels from easy to hard “buttons” and a tutorial “button”. One will be able to click on the easy level and it will direct to our first level. The easy level will contain the morning background setting with two castles and their own HP. We will have the selection bar at the bottom with the powerup’s avatar and the heroes’ avatars. The characters will be able to walk back and forward without any collision detection yet. Ideally, we would like to have two elixirs at the bottom, too.

Minimal Deliverable:

- Ideally, we will have an easy level of difficulty implemented. Characters shall be able to detect that they have collided and will attack their opponents. After each collision, the HP will update and characters shall disappear/die when their HPs reach the end. We will be able to select the heroes and place them on the chosen lanes. Units will attack enemies on the way to the tower.

Final Game:

- We will have both elixirs implemented. The player can only select the powerup when its elixir is fully charged, and the player can only select the heroes if there is enough elixir. We will be able to wipe out the enemies on the chosen lane when the powerup is used.
- We will have all three levels of difficulty implemented.
- We will add the appropriate sounds.