

The general idea of my game is to purchase and build a team that will complete all the levels by killing all the units. It is all done through the canvas, so the only control will be mouse clicking and dragging.

At the start of the game there is a hero selection, after choosing your hero the main play field will be displayed. In the middle is the board where units can be moved around (dragging) on the lower half of the board. The left side of the screen includes the “Shop” where currency can be used to roll and purchase units, as well as leveling up. Leveling up your hero allows you to purchase more units and improves your hero. Units can be removed by dragging them over a trash bin that appears to the left of the board. The right side of the board displays the traits and races that have accumulated, combining a certain set will provide a bonus. In the menu, there is a “Help” button which is a tutorial and also provides the list of traits and races as well as their bonus.

I was able to complete all of my requirements, except there is an issue with the druid trait causing a memory leak so I would recommend staying away from purchasing 3 druid units.

Tutorials used: CodeMonkey’s Grid system tutorials for creating a grid and pathfinding I included my App3 proposal below.

For my App 3, I would like to build a game in the genre of auto-battlers, similar to Teamfight Tactics, Auto chess, or Hearthstone Battlegrounds, except it will be a single-player roguelike game.

Game Mechanics/Requirements:

- Automatic combat system
- Units automatically navigate on a grid system that is 8x8
- Player will be able to purchase units to upgrade their team
 - There will be 4 Hero units to choose from at the beginning of the game, one for each race
 - There will be 16 different purchasable units and the units will vary in their cost depending on the strength/level of the unit
- Player will be able to level up their board with currency, which will allow the player to place more units on their board
 - Each level will correspond to the number of units allowed on their board
- Player will be able to adjust the location of their units on the board between rounds
- Purchasable units will be randomized
 - Player can spend currency to “roll” for a unit and decide whether or not to purchase that unit
- Units will have different traits, and combining the same trait will provide bonuses to the team and this bonus will increase the more of the same trait you have
 - There will be 4 Races: Elf, Human, Orc, Vampire
 - There will be 5 Classes: Warrior, Ranger, Knight, Druid, Hero
 - Each unit will have 2 traits, one representing Race and one representing Class

- An example of a Race would be “Vampire”, and if you have 2 Vampires on your team, they will gain 2% lifesteal.
 - Vampires: Lifesteal
 - Elves: Dodge chance
 - Humans: Bonus damage
 - Orc: Bonus health
- An example of a Class would be “Warrior”, and if you have 3 Warriors on your team, they will start regenerating a % of health per second.
 - Warrior: Regenerate health per second
 - Ranger: Add chance to deal critical hits
 - Knight: Reduce damage taken
 - Druid: Summon a golem
 - Hero: Regain all health at the end of each combat
- Enemies will get progressively more difficult by increasing the enemy's stats
 - There will be 5 different enemies and levels
- After a level is cleared, currency will be granted and there will be a menu system to be able to purchase units, sell existing units, and move units around
- Losing all units on team will restart game