Here are the classes and potential variables and objects we are thinking will be used.

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| Character class |
| Variables:  //this is the super class  -name  -max health  -current health  -attack  -Defense  -Movement Speed //the number of spaces a character can move  -Special attack  -Special defense |

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| Board class |
| //made up of tiles |

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| Tile class |
| //contains tiles  Variables:  -tile  //can contain terrain  //can contain hero  //can contain enemy  //can be an empty space |

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| Terrain class |
| Variables:  //different terrains might do different things, if we have time.  //if there is no description next to the terrain it is a standard terrain that you just have to go around.  -desk  -wall  -chair (restores health)  -door (breakable)  -snow mound  -puddle  -car  -wires (slows you down) |

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| Enemy class |
| Variables:  //subclass of the character class.  //inherited values from character class.  -name  -max health  -current health  -attack  -Defense  -Movement Speed //the number of spaces a character can move  -Special attack  -Special defense  //this will change depending on what level a person is on.  //possibly using if statements to choose the level of the enemy.  -level of enemy |

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| Hero class |
| Variables:  //subclass of the character class.  //inherited from character class.  -name //chosen by the player  -experience  -max health  -current health  -attack  -Defense  -Movement Speed //the number of spaces a character can move  -Special attack  -Special defense  //this will change depending on how many enemies they have killed  -level of hero |

//these are hero classes. For this purpose class refers to the kind of hero they are, which affects their stats and abilities

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| --- |
| Healer class |
| Variables:  //inherited from hero class.  //n is a variable that we haven’t decided the value of yet  -name  -max health =max health + n  -attack = attack - n + weapon stats  -Defense = defense - n  -Movement Speed //the number of spaces a character can move  -Special attack = special attack + n + weapon stats  -Special defense = special defense + n  Method:  Special attack:  Variables:  //other are things we haven’t decided on yet, such as doing more damage against a certain enemy type or it doing damage over time, or a status effect.  -attack 1 = special attack + other  -attack 2 = special attack + other  -attack 3 = special attack + other  -attack 4 = special attack + other |

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| Warrior class |
| Variables:  //inherited from hero class.  //n is a variable that we haven’t decided the value of yet  -name  -max health = max health + n  -attack = attack + n + weapon stats  -Defense = defense + weapon stats + n  -Movement Speed = movement speed - n  -Special attack = special attack + weapon stats  -Special defense = special defense - n  Method:  Special attack:  Variables:  //other are things we haven’t decided on yet, such as doing more damage against a certain enemy type or it doing damage over time, or a status effect.  -attack 1 = special attack + other  -attack 2 = special attack + other  -attack 3 = special attack + other  -attack 4 = special attack + other |

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| --- |
| Hunter class |
| Variables:  //inherited from hero class.  //n is a variable that we haven’t decided the value of yet  -name  -health = health - n  -attack = attack + weapon stats  -Defense = defense  -Movement Speed = movement speed + n  -Special attack = special attack + n + weapon stats  -Special defense = special defense + n  Method:  Special attack:  Variables:  //other are things we haven’t decided on yet, such as doing more damage against a certain enemy type or it doing damage over time, or a status effect.  -attack 1 = special attack + other  -attack 2 = special attack + other  -attack 3 = special attack + other  -attack 4 = special attack + other |

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| Mage class |
| Variables:  //inherited from hero class.  //n is a variable that we haven’t decided the value of yet  -name  -health = health - n  -attack = attack - n + weapon stats  -Defense = defense - n  -Movement Speed = movement speed  -Special attack = special attack + n + weapon stats  -Special defense = special defense + n  Method:  Special attack:  Variables:  //other are things we haven’t decided on yet, such as doing more damage against a certain enemy type or it doing damage over time, or a status effect.  -attack 1 = special attack + other  -attack 2 = special attack + other  -attack 3 = special attack + other  -attack 4 = special attack + other |

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| Rogue class |
| Variables:  //inherited from hero class.  //n is a variable that we haven’t decided the value of yet  -name  -health = health - n  -attack = attack + n + weapon stats  -Defense = defense - n  -Movement Speed = movement speed + n  -Special attack = special attack + n + weapon stats  -Special defense  Method:  Special attack:  Variables:  //other are things we haven’t decided on yet, such as doing more damage against a certain enemy type or it doing damage over time, or a status effect.  -attack 1 = special attack + other  -attack 2 = special attack + other  -attack 3 = special attack + other  -attack 4 = special attack + other |

//these are enemy classes. For this purpose class refers to the kind of hero they are, which affects their stats and abilities

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| --- |
| Hunter class |
| Variables:  //inherited from enemy class.  //n is a variable that we haven’t decided the value of yet  //their level will effect these as well  //the higher the level, the higher these stats will be  -name  -health = health - n  -attack = attack + weapon stats  -Defense = defense  -Movement Speed = movement speed + n  -Special attack = special attack + n + weapon stats  -Special defense = special defense + n  -level  Method:  Special attack:  Variables:  //other are things we haven’t decided on yet, such as doing more damage against a certain enemy type or it doing damage over time, or a status effect.  -attack 1 = special attack + other  -attack 2 = special attack + other  -attack 3 = special attack + other  -attack 4 = special attack + other |

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| --- |
| Boss class |
| Variables:  //will have information on the boss  //inherited from the enemy class  //n is a variable that we haven’t decided the value of yet  -name  -health = health + n  -attack = attack + n + weapon stats  -Defense = defense + n  -Movement Speed = movement speed + n  -Special attack = special attack + n + weapon stats  -Special defense = special defense + n |

|  |
| --- |
| Warrior class |
| Variables:  //inherited from enemy class.  //n is a variable that we haven’t decided the value of yet  //their level will effect these as well  //the higher the level, the higher these stats will be  -name  -health = health + n  -attack = attack + n + weapon stats  -Defense = defense + weapon stats + n  -Movement Speed = movement speed - n  -Special attack = special attack + weapon stats  -Special defense = special defense - n  -level  Method:  Special attack:  Variables:  //other are things we haven’t decided on yet, such as doing more damage against a certain enemy type or it doing damage over time, or a status effect.  -attack 1 = special attack + other  -attack 2 = special attack + other  -attack 3 = special attack + other  -attack 4 = special attack + other |

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| --- |
| Healer class |
| Variables:  //inherited from enemy class.  //n is a variable that we haven’t decided the value of yet  //their level will effect these as well  //the higher the level, the higher these stats will be  -name  -health = health + n  -attack = attack - n + weapon stats  -Defense = defense - n  -Movement Speed  -Special attack = special attack + n + weapon stats  -Special defense = special defense + n  -level  Method:  Special attack:  Variables:  //other are things we haven’t decided on yet, such as doing more damage against a certain enemy type or it doing damage over time, or a status effect.  -attack 1 = special attack + other  -attack 2 = special attack + other  -attack 3 = special attack + other  -attack 4 = special attack + other |

//here are the rest of the classes for the game

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| Defend class |
| Variables:  //we had talked about possibly needing this class. It will take a character’s defense and increase it by a certain amount for one turn.  -defense //gotten from the hero or enemy class, depending on if it is an enemy or a hero  -Defense stance = defense (\* or +) n  //there may need to be a way to access the turn that it is so this is only active for the appropriate amount of time. |

|  |
| --- |
| Character Creation class |
| Methods:  //the randomize button can be done a few different ways. There can be an if statement at each method, or you can create a whole new method for the randomize button.  -Name Hero:  Variables:  -name  -Gender:  Variables:  -male  -female  -Hero Choice:  Variables:  -warrior  -healer  -rogue  -mage  -hunter |

|  |
| --- |
| Inventory class |
| Variables:  //this class will be brought up in the world map so the player can equip their character with new things or see how many potions they have to know if they should buy more.  -Potion  -health potions  -ability potions  -Weapons  -one handed  -two handed  -dual wield  -staves  -shields |

|  |
| --- |
| Item class |
| Variables:  //there will be an array of items.  //each item will have a type  Types:  -Potion  //types of potions  -health potions  -ability potions  -Weapons(equippable)  //types of weapons  -one handed  -two handed  -dual wield  -staves  -shields |

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| --- |
| Equippable class |
| Variables:  //inherited from the item class.  -Weapons  //types of weapons  -one handed  -two handed  -dual wield  -staves  -shields |

|  |
| --- |
| Consumable class |
| Variables:  //inherited from the item class.  -Potion  //types of potions  -health potions  -ability potions |