

## **Milestone 3 Meeting Minutes**

**23/07/21**

Present: All

Summary:

- Discussion during lab 08 about evolution of requirements and extensions for milestone 3
- Progress update check made on what was completed in milestone 2 and what was unfinished
- Elijah - To reimplement battle manager, critical attack behaviour and equipment behaviour, to implement new enemies
- Owen - To implement new goals and shop
- Frank - To update user stories and acceptance requirements for milestone 3, to implement new items
- Nathan - To fix controller connection to building/cards, items, equipment, and to create screens for menu, shop, battles, win'/lose
- UML to be updated by all

Action Items:

<b>ID</b>	<b>Action Item</b>	<b>Owner</b>	<b>Deadline</b>
<b>5.1</b>	Implementation- Enemies / Battles (Behaviour)	Elijah Lee	01/08/21
<b>5.2</b>	Implementation- Goals	Owen Tang	01/08/21
<b>5.3</b>	Implementation- Shop	Owen Tang	01/08/21
<b>5.4</b>	Implementation- Items	Frank Su	01/08/21
<b>5.5</b>	Implementation- Cards	Elijah Lee	01/08/21
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<b>5.10_1</b>	Implementation- Front-end card/building functionality	Nathan Cao	01/08/21
<b>5.10_2</b>	Implementation- Front-end equipment functionality	Nathan Cao	01/08/21
<b>5.10_3</b>	Implementation- Front-end battle functionality	Nathan Cao	01/08/21
<b>5.11</b>	Menu Design- Main menu, Shop, Battles, Win/Lose screen	Nathan Cao	01/08/21

**30/07/21**

Present: All

Summary:

- Discussion during lab 09 on progress updates and integration required between implementations
- Elijah - To continue implementing battle manager, critical attack behaviour with new items made by Frank
- Owen - To update requirements of menu required by shop and interaction of goals with other classes
- Frank - To work with Elijah on item behaviour and battles
- Nathan - To work on Front-end controller functionality, have screens ready for win/lose, and a shop screen

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5.3	Implementation- Shop	Owen Tang	01/08/21
5.4	Implementation- Items	Frank Su	01/08/21
5.5	Implementation- Cards	Elijah Lee	01/08/21
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5.10_1	Implementation- Front-end card/building functionality	Nathan Cao	01/08/21
5.10_2	Implementation- Front-end equipment functionality	Nathan Cao	01/08/21
5.10_3	Implementation- Front-end battle functionality	Nathan Cao	01/08/21
5.11	Menu Design- Main menu, Shop, Battles, Win/Lose screen	Nathan Cao	01/08/21

**31/07/21**

Present: All

Summary:

- Saturday update on progress completion
- Elijah - Redid battle manager logic to account for individual attacks/crits, working on it3 requirements (bosses)
- Owen - Implemented goals including reading from the json, composites and
- Frank - Implement features leftover from milestone 2. Change old code to work with any refactoring done. Finalise some new features introduced in milestone 3.
- Nathan - Continue front-end development and finalise screens for submission

Action Items:

ID	Action Item	Owner	Deadline
5.1	Implementation- Bosses and Block Behaviour	Elijah Lee	01/08/21
5.2	Implementation- Goals	Owen Tang	01/08/21
5.3	Implementation- Shop	Owen Tang	01/08/21
5.4	Implementation- Items	Frank Su	01/08/21
5.5	Implementation- Cards	Elijah Lee	01/08/21
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5.10_1	Implementation- Front-end card/building functionality	Nathan Cao	01/08/21
5.10_2	Implementation- Front-end equipment functionality	Nathan Cao	01/08/21
5.10_3	Implementation- Front-end battle functionality	Nathan Cao	01/08/21

5.11	Menu Design- Main menu, Shop, Battles, Win/Lose screen	Nathan Cao	01/08/21
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# Requirements analysis:

**Epic Stories**

**User Stories**

**Acceptance Criteria**

**Story Points**

**Priorities**

## Epic A: Player character interactions

As a player, I want my character to be able to directly interact with objects in the game, so that the gameplay is captivating and engaging.

- User stories: Items
  - 1.1 As a player items should exist in the game to give me some advantages when dealing with obstacles
    - Medium priority
    - 2 story points
    - Acceptance Criteria 1
      - Given I am a player of the game
      - When I equip an item
      - Then the game should adjust the strength of my character accordingly
    - Acceptance Criteria 2
      - Given I am a player of the game
      - When I unequip an item
      - Then the game should adjust the strength of my character accordingly
  - 1.2 As a player, rare items that provide unique advantages should exist in the game to encourage the player to look for them.
    - Low priority
    - 2 story points
    - Acceptance Criteria 1
      - Given I am a player of the game
      - When I equip a rare item
      - Then the game should adjust the strength of my character accordingly
    - Acceptance Criteria 2
      - Given I am a player of the game
      - When I unequip a rare item
      - Then the game should adjust the strength of my character accordingly

- 1.3 As a player money should be able to be used to allow the player to buy or sell items.
  - Low priority
  - 3 story points
  - Acceptance Criteria 1
    - Given I am a player of the game
    - When I have money
    - Then the game should give me opportunities to buy items I want
  - Acceptance Criteria 2
    - Given I am a player of the game
    - When I have items
    - Then the game should give me opportunities to sell items I don't want
- 1.4 As a player consumables should exist to allow for temporary advantages to encourage strategic gameplay and decisions
  - Low priority
  - 3 Story points
  - Acceptance Criteria 1
    - Given I am a player of the game
    - When I have a consumable
    - Then the game should give me opportunities to use the consumable to temporarily adjust the strength of my character
  - Acceptance Criteria 2
    - Given I am a player of the game
    - When I used a consumable
    - Then the game should should remove the consumable from my characters inventory

#### User stories: Enemies and battles

- 2.1 As a player enemies should spawn in the game so that the I can experience obstacles that will increase the difficulty and interaction with the game
  - High priority
  - 5 story points
  - Acceptance Criteria 1
    - Given I am a player of the game
    - When I am in a battle
    - Then the game should allow me to battle enemies
  - Acceptance Criteria 2
    - Given I am a player of the game
    - While I am playing
    - Then more enemies spawn throughout the game
  - Acceptance Criteria 3
    - Given I am a player of the game
    - While I am playing
    - Then enemies that spawn get more difficult the longer the game goes
  - Acceptance Criteria 4
    - Given I am a player of the game

- When I am within the battle radius of an enemy
  - Then game should force me to battle the enemy
- 2.2 As a player, the enemies I defeat should drop objects(items) that will contribute to completing the games goals
  - High priority
  - 3 story points
  - Acceptance Criteria 1
    - Given I am a player of the game
    - After battling
    - Then enemies defeated will drop exp
  - Acceptance Criteria 2
    - Given I am a player of the game
    - After battling
    - Then enemies defeated will drop gold
  - Acceptance Criteria 3
    - Given I am a player of the game
    - After battling
    - Then enemies defeated will drop cards
  - Acceptance Criteria 4
    - Given I am a player of the game
    - After battling
    - Then enemies defeated may drop items

## Epic B: Game world interaction

As a player I want to be able to modify the game world such that I can advance the game

- User stories: Buildings and Traps
  - 1.1 As a player I want the ability to place down building cards so that I can indirectly benefit my character
    - High priority
    - 4 story points
    - Acceptance Criteria 1
      - Given I am a player of the game
      - When I am playing the game
      - Then the game should give me opportunities to place down building cards
    - Acceptance Criteria 2
      - Given I am a player of the game
      - When I am near a building
      - Then the game should adjust the strength of my character
    - Acceptance Criteria 3
      - Given I am a player of the game
      - When i was near a building but am no longer
      - Then the game should adjust the strength of my character
    - Acceptance Criteria 4

- Given I am player of the game
  - When a place down a building that spawns enemies
  - Then the game should should spawn appropriate enemies near the buildings
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- 1.2 As a player I want the ability to place down trap cards so that I can make battles more interesting
  - Low priority
  - 2 story points
  - Acceptance Criteria 1
    - Given I am a player of the game
    - When I have trap cards in my inventory
    - Then the game should allow me to place traps on path tiles
  - Acceptance Criteria 2
    - Given I am a player of the game
    - When a enemy steps on a trap
    - Then the game should trigger the trap and affect the enemy
  - Acceptance Criteria 3
    - Given I am a player of the game
    - When I place down a trap card
    - Then the game should consume the card so that I cannot use it again

## Epic C: Game state options

As a player I want to be able to change the game state so that I can play the game at a fitting pace.

- User stories: Game state interaction
  - 1.1 As a player I want the ability to pause the game so that I am able to preserve my progress if I become unable to continue to play
    - 1 story point
    - Low priority
    - Acceptance Criteria 1
      - Given I am a player of the game
      - When I am playing the game
      - Then the game should be able to be paused
  - 1.2 As a player I want the ability to unpause the game so that I can continue from where I paused
    - 1 story point
    - Low priority
    - Acceptance Criteria 1
      - Given I am a player of the game
      - When the game is paused
      - Then the game should be able to be unpaused
  - 1.3 As a player I want the ability to save the game so that I can start playing when the save point whenever I want
    - 6 story points

- Low priority
  - Acceptance Criteria 1
    - Given I am a player of the game
    - When the game is paused
    - Then the game data should be able to be saved
  - Acceptance Criteria 2
    - Given I am a player of the game
    - When I haven't started playing
    - Then I should be able to load into the game from a save state
- User stories: Game modes
  - 2.1 As a player I want the ability to select different modes of gameplay so that I can adjust the challenge and gameplay experience
    - 4 story points
    - Low priority
    - Acceptance Criteria 1
      - Given I am a player of the game
      - When I haven't started playing yet
      - Then I should be able to select a mode in which to play the game
  - 2.2 As a player the game in the non-endless mode should have a way to be completed so that I have something to progress towards
    - 3 story points
    - Low priority
    - Acceptance Criteria 1
      - Given I am a player of the game
      - When I am playing the game
      - Then the game should provide goals to be completed after which the game ends

## Epic D: User interface

As a player I want the user interface to be intuitive and clear so that I can more easily learn the games mechanics

- User stories: Tooltips
  - 1 story points
  - Medium priority
  - As a player I want tooltips so that I can more easily learn the game
    - Acceptance Criteria 1
      - Given I am a player of the game
      - When I am playing the game and hover over a hud element
      - Then a tooltip should appear telling me what that element does
    - Acceptance Criteria 2
      - Given I am a player of the game
      - When I was hovering over a hud element but am no longer
      - Then the tooltip should disappear
- User stories: Color schemes



- 1 story point
- Medium priority
- As a player I want good color choices so the game is aesthetic
  - Acceptance Criteria
  - Given I am a player of the game
  - When I am playing the game
  - Then the game's color scheme should be appropriate

## Assumptions

Drops involving exp, items and gold are randomised from set values e.g. killing a slug will give u randomised amount of exp between 4-5 likewise with gold etc

Cards can be obtained from the shop or as drops, when oldest card is replaced due to having too many cards the player will receive drops according to the randomness set above

World generation: At the start of the game, a randomised path is created as the world. The game is immediately in a pause state and starts once the player places the hero's castle

Battle: When a battle is initiated, the game enters a combat state (which can also be paused) and an overlay depicting a representation of the battle is shown. Each side of the battle takes turns dealing damage until one side is defeated, and the game continues looping.

The game can be saved at any point in time and loaded to play later.

Enemy movement:

- Slugs do not move and stay in the tile they spawned in until a character moves to the same tile as them
- Zombies once spawned continuously move in the opposite direction of the character (at half the rate) until encountering the character
- Vampires initially move in the opposite direction of the character at double the rate. If it encounters a campfire, it reverse direction

Equipments character has equipped: The character can only equip one of each item type (weapon, armour, shields and helmets)

Allies do not appear on the map but they appear in the "allies" section of the UI. The allies support the character when he enters combat.

Object behaviour

Vampires and zombies are spawned at their respective buildings

Slugs can spawn randomly on path tiles