

## UNIVERSITY OF WITWATERSRAND

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TASK: Retrospective Project Plan and Analysis

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WORD COUNT:

### PLAGIARISM DECLARATION

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2. I have used author date convention for citation and referencing. Each significant contribution to and quotation in this essay from the work or works of other people has been acknowledged through citation and reference.
3. This essay is my own.
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## Project Introduction

The game concept for *Foxy The Savage* is to make an easy-to-understand introduction to turn-based combat games. Using the iterative design process and rapid prototyping, the game will make use of mechanics such as important decision-making of moves and stat increases, tracking of health points, understanding enemy behaviour, and handling increasing difficulty – all effectively communicated through minimalistic and clear UI design as well as appealing aesthetics. The game production will occur from the 18<sup>th</sup> of March to the 23<sup>rd</sup> of April.



## Feature Lists

### Data design of player and enemy units:

- Player HP, solid attack, more powerful but reckless hard attack, and a heal move.
- Enemy HP and attack values.
- A state machine to create turn-based interaction between the player and enemy.

### Communication of mechanics:

- A combat log will display the outcomes of the player and enemy's moves.
- A glowing effect behind the player or enemy will indicate which unit's turn it is.
- Different audible cues symbolising the move's result; a hit, miss or critical hit.
- Colour coordination within the combat log.

### Level design in terms of enemy and player progression:

- First enemy will be made easier by having their single attack have a small chance to miss.
- implementing two new enemies
  - o The second enemy will gain a more powerful attack like the player's hard attack.
  - o The third enemy will have less of a chance to miss both attacks, and the damage of their moves will increase.

- At the end of a completed battle the player chooses to increase HP, damage or their heal.
  - o The third round will not consider the previous round's stat increase choice.
  - o Third round stat increase will scale according to the damage of the enemy.

#### Refining feedback loops and narrative:

- Add assets to visually communicate contextualisation.
- Improve on communication design of UI and data interactions.
- Clarify the feedback loops to the player through improved combat log.

### Task Breakdown

#### Needed features:

- State machine to control turns
- Minimum of two enemies
- Stat increase mechanic at beginning of second fight
- Increase in difficulty between enemies
- Player and enemy HP and attack values

#### Wanted features:

- Combat log
- Colour coordination and audible cues
- Clearly identifiable feedback loops
- A heal move for the player
- Easy to understand UI

#### Dreams:

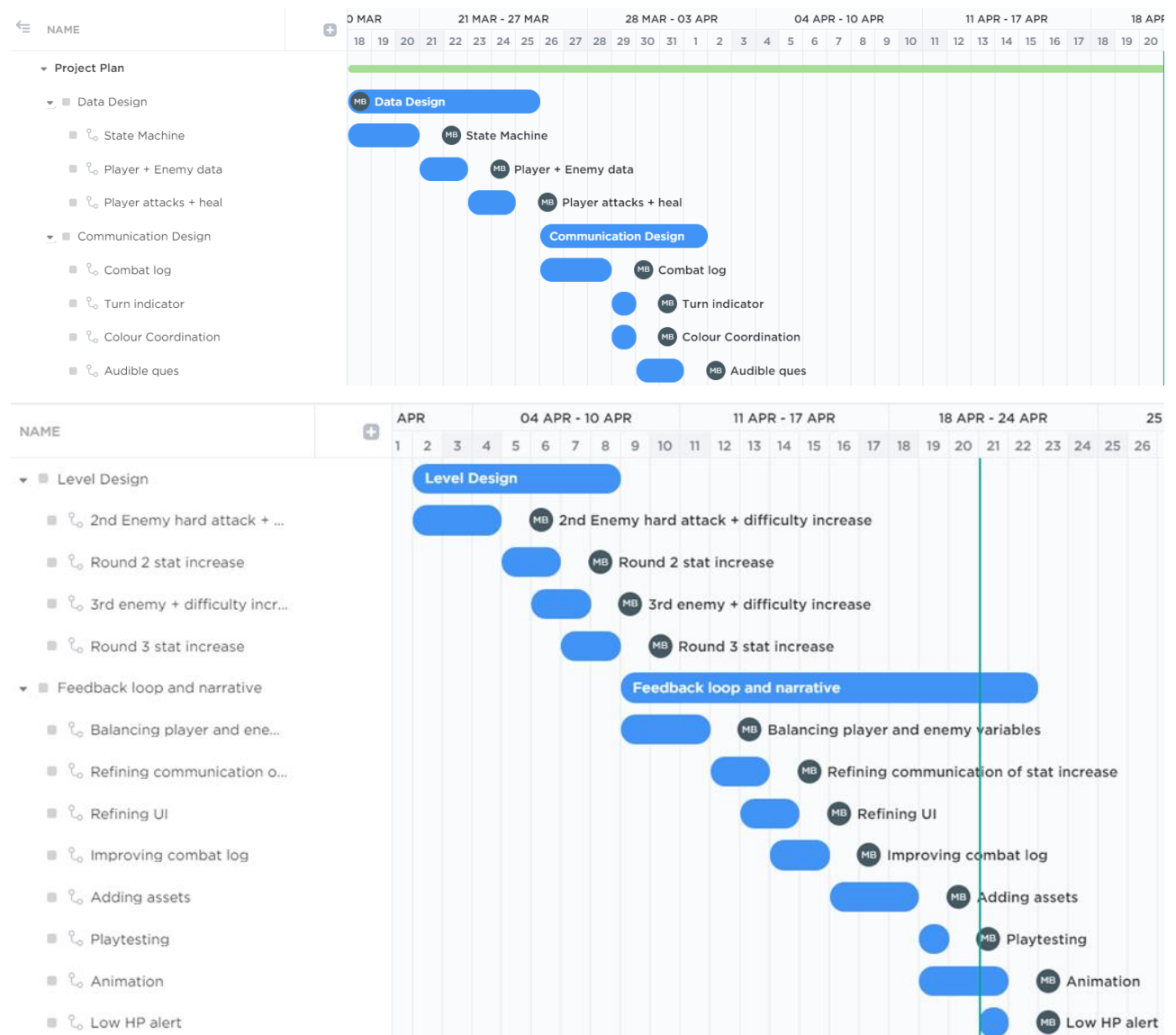
- Singleton that would carry over stat increase choices
- A power point system for moves
- A heal move for the enemy
- A power point restore item
- Visually appealing aesthetics
- Animations
- Background music for immersion

### Dependencies

The turn-based state machine needs to be created first, as it allows for all the other features to be added. The second dependency should be assigning and displaying player and enemy data. With concrete values to work with, all other features can follow, apart from the stat increase mechanic. The addition of multiple enemies will allow for the integration of this feature.

## Scheduling

Due to the development team only consisting of one designer, all tasks will be assigned to them. A rough time estimate for each key feature would be one week per main feature, with feedback loops and narrative being given two weeks. Within each key feature lies sub-features which are broken up and given individual time frames.



Small features, mostly wanted features, are given a day to complete such as colour coordination and turn indicator, while core features such as the state machine, the stat increases, and the combat log are assigned far more time as these need to be perfected to reach a minimum foundation to work with.

## Risks

The final two weeks are purposely chosen as to allow free space for the delay of any other tasks caused by risks. These risks could include:

### High-level risks:

- Contracting Corona Virus or any other serious illness (High level)
- The loss of a friend or loved one (High-level)
- Power outages (Medium-level)
- Attending an important event such as holidays or weddings (Low-level)

## Milestones

Milestone 1 – Due: 25 March, sufficiently completed data design of the first enemy and player.

Milestone 2 – Due: 1 April, Create an effective UI and good communication

Milestone 3 – Due: 8 April, Achieve good level design across enemies and implement the stat increase mechanic.

Milestone 4 – Due: 22 April, fully polish game, playtest and balance all data values, clearly define feedback loops, contextualise game.

# Appendix A

## Final project – Assignment 4

2090536, Michaela Bussey

### Intention

While working on refining and polishing the prototype into a presentable vertical slice, my aim was to create a good narrative, or game system, with strong and clear game loops; both positive and negative. Furthermore, I wanted to use the skills learned from last year's Digital Arts Design Project of rapid game design techniques to properly flesh out the narrative of this prototype within a week, as even though two weeks were given, the first week was used on other subjects. A stretched goal would be to incorporate a power point system for the player's moves to better balance their power. Additionally, the carrying over of stat increases from the previous battles could be implemented.

I hypothesize that the content created from the level design prototype will provide enough feedback loops to work with, and building and improving the game's overall narrative will take centre stage.

### Process

After learning about feedback loops in more detail, I realised that the stat increase mechanic had both a positive and negative feedback loop associated to it. The obvious positive was that the player would be rewarded for their previous win by choosing what element to strengthen. This positive was balanced however, through a passive negative feedback loop of the enemy's damage output increasing, and the gaining of a new move, the "Hard Attack".

The forgiving nature of the stat increase mechanic was another important but more nuanced example of a negative feedback loop. This was because it did not punish a player for their previous turn's choice by not carrying over their decision into the next battle, essentially allowing a player to recover and learn from the previous battle's experience. It was because of this that the decision to not implement a singleton was chosen, and instead focus was put onto improving the communication of this feature. Refining the player's understanding was done by colour coding the buttons according to their corresponding variables; the sensor element being optimized. The comparator had already been made through the working button functions in the

“BattleSystem” script. The button click was the activator and would update the text variable associated with their chosen stat increase to clearly communicate this to the player.

Expanding on the enemy’s negative feedback loop, the combat log was upgraded to more clearly indicate to the player how the enemy stats were growing just as the players was. This was done by replacing the scroll text box with three separate text boxes that would replace each other based on incoming choices. This replacement enabled each text line to stay correctly coloured according to whose attack it was, with all enemy moves staying in red and all player moves staying in blue. This was beneficial as it improved the contextuality of the events happening, and better communicating the negative feedback loop by displaying text that informs the player of the enemy’s power increase. Additionally, the choice to only display the last three events helped the player stay in time with the gameplay, and not be overwhelmed by the amount of text on the screen.

Finally, the overall visuals were improved by bringing in external assets that gave a sort of narrative progression to increase player engagement. The enemies visually looked more dangerous than the last, further pushing the fact that the enemies also grew in power just like the player.

## Reflection

A focus for this prototype was placed mostly on enriching the overall game narrative and game feel rather than implementing new features and feedback loops. Good examples of feedback loops were already present, and with the time limit in mind, I knew that after implementing the visuals and improving the current game and feedback loops, I would not be able to implement features such as a power point system or a singleton for the stat increase mechanic, so I decided to further improve the already existing feedback loops.

The hypothesis was met and was a good estimate of what was possible due to time constraints. The aim to use previous rapid game design was definitely used as implementation of visuals and effective polishing of existing elements was achieved and resulted in a short, but enjoyable vertical slice, with strong examples of negative and positive feedback loops, with a clear game narrative.