# AS91897 Production Log

## Brief

**Maui's discovery of Aotearoa**

A text-based video game is a genre also known as "interactive fiction". This was very popular back in the day when there was an absence of video game graphics and you had to use your imagination. The game's environment and the actions you take are described for you.

You are going to develop your own text-based adventure game based on the story of Maui's discovery of Aotearoa. You will follow in Maui's footsteps as he navigated his waka to find the land we now live in.

 Your character should be able to navigate the sea, pick up food (fish) along the way and discover parts of Maui's story along the way to find Aotearoa which is randomly allocated to the board at the start of the game, as is your starting position. Every two moves mean you eat one of your items of food (you start with 3). The board has fish randomly allocated. If you run out of food the game is over.

It is recommended that you do NOT make the sea larger than a 5x5 grid.

## End Users:

My target audience for this project will be the students in this digital class and Mr Ny.

## Relevant Implications

### Social

The social implication is that we must consider gender neutral and whether it will be formal or informal language in accordance to the target audience.

My target audience is school children therefore I will choose to use an informal language as it will be more relatable.

I will get stakeholder feedback from students of the target age group at stage 1 to establish if I have used language appropriate to that age group.

### Legal + Intellectual Property

The legal implication is that we must ensure that all resources used should be copyright free and/or used with permission.

I will provide credits at the end of my program if I used resources with permission to ensure that.

### Accessibility

### Future Proofing

### Cultural

I will consult and survey people of Maori heritage to make sure that my program is not culturally insensitive, as well as research the legend properly with a wide range of sources.

UPDATE: I have secured an Maori Stakeholder

### Privacy

I will ensure that my program only stores data related to the game that does not contain any personal information. The player will be given no explicit prompt to enter personal data, and if they do none of the variables that are stored contain information not relating to the game.

### End User

### Aesthetics

I will consult my stakeholder to ensure that the aesthetics in my program are pleasing and do not take away from the experience.

### Functionality

### Usability

### Health & Safety

I will warn users that they are not the Demigod Maui and as such should not attempt to fish up an island continent.

## Requirements

### Research

#### Maui’s Feats and Legends

According to Maui’s Wikipedia entry, there are a couple of myths about Maui I could do.

The first myth tells the story of Maui’s naming and his family.

The second myth tells of how he fished up Aotearoa. This will be the most important one and what I start with.

The third myth tells of how Maui discovered how to create fire for mankind. He went up to the Mahuika, goddess of fire and volcanoes and requested for fire for his village.

The final myth tells of his death and his quest to claim immortality for mankind. It tells of the goddess of death and Maui’s

<https://teara.govt.nz/en/te-hi-ika-maori-fishing/page-1>

#### Old Adventure Game: Zork

Text Based

#### Engine Research

#### Planning

#### Prototype Research

##### Paper Prototype/Wizard of Oz

This prototyping method relies on using digital or physical resources to create slides based on what a program could look like. Ways to do this could be using paper (hence the paper prototype name) or digitally using resources like paint or Photoshop.

#### GitHub

GitHub is the version control software that I will be using to develop my project. GitHub is a very useful software that allows me to effectively control changes that I have made. GitHub is optimized for multiple developers, but on this project I will be working alone. What makes GitHub so useful is the ability to create a clone of my main repository to implement changes and/or bug fixes and if they don’t pan out right I am able to rollback my changes. If the changes work however, I can easily commit them back into the main repository.

### Brainstorm

* Represent the ocean using ASCII text (Similar to table printing)
* Singular Playable Character
* Fishing Combat?
  + Upgrade fishing rod upgrade stats?
  + Luck-based catch
* More than one level
  + Discovering Aoteroa could be the final level?
  + Alternatively all the way to Maui’s death
    - Goddess of Death cut scene death?
* Difficulties could be done
  + Starting fishing rod?
  + Turns before hunger deteriotes
  + Starting Fish
* Different Tiles
  + Represented by different symbols or colour?
    - Color.write
* Fish expiry?
  + Difficulty Dependent

### Evaluation

*Why did you chose to use the planning tool for the requirement that you did?*

I am using the scrum methodology because the industry uses

*What are the requirements for your project you have derived from this planning?*

### User Stories

Priorities: Crucial Good to Have Side Feature Extravagrant

As a player, I want the fishing to be simple and intuitive yet varied by having a chance based system so that the hunger system isn’t one dimensional.

As a player, I want a hunger system so I can feel a sense of pressure as I play through the game.

As a experienced player, I want a hunger system that is varied with different food so that the hunger system feels intricate.

As a Maori, I want the legend told in this story to be factually accurate so that future generations have the correct idea of my ancestor’s stories.

As a player, I want the world to be visually displayed so that I can easily see where I have or have not been.

As a player, I want a combat system so that I can really feel empowered like the demigod Maui.

As a developer, I want the program to be structured logically so it is easy to understand and improve.

As a learner, I want there to be multiple scenarios so I can learn a lot about Maui’s legend.

As a casual/hard-core player, I want different difficulties so that I can decide whether I want a hard challenge or just want to breeze by Maui’s legend.

As a player, I want to be able to choose which world to go to if I’ve completed the game so I can retry sections I did not understand/appreciate.

As a player, I want there to be different items I can use like weapons or fishing rod so that I can feel a sense of progression.

As a player, I want the ability for Maui to permanently die ending the game so that I can feel a sense of pressure.

As a non-maori speaker, I want there to be a glossary of Maori words used so that I can understand what they mean.

As a player, I want the ability to save my game so I can continue to play after sessions.

As a player, I want varied enemies so that encounters aren’t stale.

As a player, I want different moves and attacks so that encounters feel varied.

### Critical Review Points

My first critical review point should be just after creating a playable version of the game featuring an over world and the ability to move and get to a certain important objective. By this point, I should have a version of the game which allows me to see an ASCII layout of a pre-determined map, a system that allows me to move throughout the map but not go out of bounds.

* Map
  + Preprogramed Boundaries
  + Preprogramed Content
  + Preprogramed Ending Point
  + Preprogramed Starting Point
* Movement
  + 4 Cardinal Directional Movement
  + Prevent from going out of Bounds

My next goal should be to implement a fishing/hunger system. To start off, there won’t be any different types of fishing rods, just a normal one that Maui will start with. Based on the type of terrain that the user is on, they can have the option to fish. If the user is on a land tile they won’t be able to fish. The fishing system should by this point function on a chance based system (50/50 for this version)

* Fishing
  + Default Rod
    - Starts with Maui
  + Terrain
    - Allow Fishing On Water
    - Disable Fishing on Land
  + Catch Rates
    - 50/50 At this point
  + Fish
    - Just a normal “Fish” at this point
* Hunger
  + Track Amount of Fish user has
  + Eating
    - Allow Consumption if user has fish
    - Disallow Consumption if user does not have fish.
  + Gradually go down with every turn that passes

Afterwards I should aim to create a system that allows the user to find different fishing rods and catch different types of fish (based on terrain and rod). At this point, all the necessary ingredients are needed to be able to complete the first scenario. The first one would be Maui discovering Aotearoa, completed when the user fishes on a specific tile with a special fishing rod that can be found somewhere predetermined.

* Inventory
  + Store Fish
  + Store Items
  + Ability to Equip/De-equip different items

## Development

### Version 0 – 1

From this version onwards, I will be aiming to create a map that has all the functions of my first review point.

#### v0.1

This is the version where the document is created, but I haven’t done anything other than that so far.

#### v0.2

+ Added Map Generator for Stage 1

+ Added Framework for Movement Processing

+ Added Framework for Movement Checker

+ Added Framework for Map Displayer

+ Added Basic Main Command Structure

#### v0.3

+ Movement Processor functions as intended now!

+ Changed the two dimensional lists into one dimensional lists

#### V0.11

Feedback from Mr Ny: I’d like there to be a little introduction that explains to the player what they’re doing and what they need to do or a help thing somewhere. The movement is cool, but I’d like there to be the option to type abbreviations such as u, r etc

Response: The help module and intro is something that I would program later, currently it is not a high priority and the only people with access to this program would have the presence of a developer next to them to explain. Before my final version release for 1 however, I will make sure help is something that can be achieved. Actually in this version I’ve just finished coding a command processor so that means that I now have the ability for the program to detect whether a player is asking for help.

The abbreviation thing however, is not something that I’d foreseen. I will make sure to code that in. However, currently my keyword detecting system doesn’t play well with letters. If I recall however, Zork did not allow the player to type abbreviations. Further research is required.

#### V0.12

Feedback from Chris: Enter a space after “Enter a command”. Make it so I can’t have negative fish. A bigger grid size would make the game harder and a bit longer.

#### V0.13

Feedback from Tristan: More content, map size and random things happening I.E AI interactions with player, more chooses and animal attacks. Interactive items on map

Intro: It was captivating, Interesting and gave a feel of adventure for the player to start the game with

Movement System: it worked smoothly and gave the me the player time to think about what my next move would be. It also was easy to understand and to use with a wide amount of codes available for movement purposes

Map Display: The map was on the small side and not captivating for the eye with its use of letters and lack of colour. To improve this, I would suggest making the map larger in either height, length or both. Another idea for improvement would be to introduce a new spectrum of colours that make sense with the environment it is describing.

Hunger: The hunger aspect was a little but pointless. The player starts with too much food for the hunger mechanic to make sense. By the time the goal of the game was reached I only had to eat twice leaving me an extra 1 piece of food left, I also took the longest rout in the game for perspective as to how frequently the player needs to eat. A way to fix this would either involve making the map larger, starting with no food and picking it up in the game, lesson the time between eating, or to start with less food at the start of the game.

Response: Questlines and content is something that I plan to implement at a later date, right now I’m more focused on getting my key mechanics down. Your ideas for random events are actually quite interesting however and contain events that I haven’t thought of. I will try to implement some of your events in future ☺. The map color spectrum is something I haven’t thought of, I think ill make a custom python color scheme for my project so that map stuff is more clear. I plan to develop fishing right now.

In this version I try to implement a fishing mechanic. However, I have 2 main decisions.

Should fishing involve the player in a minigame of sorts, or should it just be chance based?

Should the player be able to fish multiple times per turn?

Bohan: I think that a minigame would be too tedious because fishing and hunger are core mechanics and implementing an exercise is too tedious. Chance based is good. I also think that the amount of times a player can fish per turn should be limited to 2. I think the chance should be 30-40. I think that the hunger should affect fishing chance. For example, if the player is hungry they should be able to fish less, but have a higher chance of getting a fish. I also think that hunger shouldn’t kill you instantly and instead be a chance

Isaac: I think that it should be a chance based system would be better with the fishing system. You should only be able to fish 5 times in a row and then you have to move again. It should be a 30% chance of catching a fish. I reckon you should only be able to move three places before having to eat again. If you move to many time while hungry, you should die.

Rowan: I believe the fishing should be balanced not through a minigame but through something risk/reward based, as right now you can fish until you have 20 fish on the spot and then keep going, so maybe keep it chance based but introduce some sort of penalty for staying on the spot or have enemies approach or something like that? The hunger is fair though. The player should be able to fish once per turn, maybe even less if in certain circumstances, but keep all other abilities.

Mr Ny: I think that the fishing should be chance based and that the current probability at 50% is just fine, I think that not only should the player be able to fish once per turn, it should take up the entire turn, that way there is a cost to fishing. When you do implement the fishhook of maui, the player should be guaranteed to catch a fish or something.

Based on Mr Ny and Bohan’s feedback, I have reduced the amount of turns you can fish to 1, and in addition it takes up a turn. The common consensus is a chance based system is way better than a minigame. I will choose to follow the feedback of these stakeholders as it is unanimous.

Mr Ny Feedback: First Up, there should be something that tells the user to enter help at the start for help. The intro is cool, although a macro on the ‘a’ in Maui for the intro display would be good. I think the movement is cool, everything is sweet. I think that the player shouldn’t be able to see where everything is however, and they should try to locate the ends on their own. A fog of war might be good

Response: ooooo a fog of war mechanic would be great, and it would tie in perfectly with my idea of implementing text that tells you where your whereabouts are. I’ll try to get the macron in maui soon although that may take a while.

### Version 1 – 2

#### Critical Review Point

Since I’ve accomplished everything I wanted to in my first review point, I’ll go over only my second review point which is as follows:

* Fishing
  + Default Rod
    - Starts with Maui
  + Terrain
    - Allow Fishing On Water
    - Disable Fishing on Land
  + Catch Rates
    - 50/50 At this point
  + Fish
    - Just a normal “Fish” at this point
* Hunger
  + Track Amount of Fish user has
  + Eating
    - Allow Consumption if user has fish
    - Disallow Consumption if user does not have fish.
  + Gradually go down with every turn that passes

Out of these I’ve finished terrain checking on fishing, catch rates and fish in inventory. I haven’t done the default rod start yet, but that’s not important in hindsight. For hunger, I’ve completed fish tracking and eating. The hunger value I decided to end at was 6 so the user has 5 turns to do whatever. My next review point is :

* Inventory
  + Store Fish
  + Store Items
  + Ability to Equip/De-equip different items

I think I’ll change this to:

* Inventory
  + Different Types of Fish
  + Store Items
  + Ability to Equip/De-equip different items
  + Code in Quest Items
  + Code in a small crafting system of sorts.
* Storyline
  + Implement a bigger map and story
  + Let the user actually find the grandma’s jaw to craft the fishhook of Maui
  + Possibly implement a cave level
* Map Generation Engine
  + Fog of War Maybe
  + More aesthetic maybe
  + Get rid of map maybe
  + Text to show where you’re around

I’ll focus on the actual game since the mechanics have at this point basically been completely done. The key focus of this version is storyline and map.

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