**GAM1002 Adventure Game Documentation**

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**Module Leader: Penda Tomlinson**

**Game: Amoeba steals King Krab’s Secret Recipe**

**Student No: M00913606**

**MDX Game Design**

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# Introduction

This document documents the gameplay process and development of my game.

## Game Idea and Planning

### Description

The game is set in a restraunt called The King Krab, owned by King Krab himself (although he is nowhere to be seen) in a fictional city under the sea called Reef City. You play as Amoeba, an evil Amoeba. You also own a restraunt, The Barnacle Bucket, although your food is so bad that you have no customers. The King Krab, on the other hand, is the most popular restraunt in Reef City. Your goal is to steal King Krab’s secret recipe so you can cook just like King Krab and steal all of his customers.

There are 2 NPCs in the entire game. One is a fish eating soup in the first room – he is very rude and swears a lot. The other character is a chef who is also a fish who is making soup in the kitchen.

Your first puzzle is to find a way into the kitchen. You start off in the dining area of The King Krab. There are 3 doors – 2 lead to the kitchen, and 1 leads to King Krab’s office. You’re too small to open any of them, so you have to find another way in. There is an open window into the kitchen, and a fork lying on the floor. You must USE the fork to pole-jump through the window, but you miss and land in the fish’s soup instead. He continues eating the soup and you accidentally go in his mouth. You are then spat out through the window and into the kitchen.

Your second puzzle is to find a way into King Krab’s office. When you land in the kitchen, the chef asks you what you are doing there and asks you to leave. Tell him “A customer is about to leave without paying” and he will leave the kitchen to go to the dining room. A locked door leads to his office from inside the kitchen, but you are too small to open it. While the chef is gone, OPEN the cupboard and STEAL the “secret ingredient #9” and the key. If you LOOK at the “secret ingredient #9” you will see that it produces narcotic effects. So you must USE the “secret ingredient #9” with the pot of soup and Amoeba will pour in the whole box and hide. The chef returns, stirring and tasting the spiked soup. Because there is such a high concentration of narcotics in the soup, the chef is now heavily intoxicated and will do anything anyone says. GIVE him the key and he will open the door for you and immediately pass out. You may now enter King Krab’s office.

Your final puzzle is to retrieve the secret recipe. If you USE King Krab’s computer, you realise that you need a password, and you are given a hint: the year of King Krab’s daughter’s 5th birthday. King Krab has a picture of his daughter’s 5th birthday on the wall. There is a date written on the corner, but it’s too small to read so you need to USE the ball on the picture to knock it down. LOOK AT the fallen picture and you will see the year (2011). USE King Krab’s computer again and a wall panel disappears revealing the secret recipe. STEAL the recipe and the game is finished.

### Inspiration

This game is inspired by the cartoon series [*Spongebob Squarepants*](https://spongebob.fandom.com/wiki/SpongeBob_SquarePants_(series)). Plankton, an evil plankton, is always trying to steal Mr Krabs’ secret Krabby Patty formula from his restraunt, the Krusty Krab. There are many Spongebob games, but none where Plankton is the main character. So I decided to make a bootleg Spongebob game, where the goal is to steal a secret recipe. Instead of Plankton, you play as an Amoeba known as “Amoeba”. Mr Krabs is now King Krab (but he is nowhere to be seen), and the Krusty Krab is now the King Krab. Instead of Spongebob flipping burgers you have a generic looking fish who cooks soup instead.

Do not be mistaken – this is not a Spongebob game. This is a BOOTLEG Spongebob game. I designed the assets to remind people of the cartoon, but not to look too similar. Some of the colours/decorations are notably different from the caroon, while several parts of the game are completely different (for example, Mr Krabs from the cartoon does not have a liquor cabinet or a computer).

### Game and Puzzle Design with Sketches, Diagrams, and Maps

## Implementation

I started off with Adventure Game Studio’s “Tumbleweed” template which is based on the LucasArts point-and-click adventure games. Then, I began designing all the sprites and backgrounds. Once I had them I began to create the game while frequently playtesting.

During development I had a few other students try the game. Some of them said it wasn’t exactly clear what to do, so I added a few hints to the game. One student also suggested a second way to complete a puzzle (bribe the chef instead of drugging him), which I considered but didn’t add to the final build due to time constraints.

Once I had a fully working game I improved upon it one last time by cleaning-up/de-duplicating code, finally adding music, a credit sequence and a custom game icon.

## Reflection

I consider this a complete game because it is fully working and free of bugs. The game has good looking graphics and animation, so it is easy to tell what is going on. The game has sound effects and even music. The game also has a couple of NPCs you can talk to, with little but fitting dialogue.

However,A few extra sound effects would have been nice, for things like doors, the soup pot bubbling, and the wall panel disappearing. I also would have liked to improve the animations, as well as add talking animations for the NPCs instead of just the player. I did not spend much time on the environment – I could have added a few extra details to make the scenes look more authentic (floor stains and spills, extra furniture in King Krab’s office). If it were a full game, I also would have made the game much longer with more puzzles and rooms.

When I began to implement and playtest them, I had to change a few mechanics due to complexity or to improve upon them. I was unsure abouth the 3rd puzzle until I had to make it. Also,I probably should have written cleaner and more optimised code from the start instead of improving it later.

I learned that the game development process can change quickly and unpredictably. Sometimes good ideas come up unexpectedly during development, or changes have to be made to particular mechanics. I need to write well-organised and flexible code to make these changes as easily as possible.

Among other things, in class we were taught about pitching the difficulty level to the intended audience, so I tried to make the game neither too difficult nor too easy. Also, creating player interest by adding an unexpected twist, such as when Amoeba tries to jump through the window but lands in the soup instead, but then gets spat out through the window anyway.

Personally, I don’t see anything I could have done better given the time that I had to finish the game.

I was always under the impression that game developers spend ages planning their game. And while that is true, sometimes planning too long can waste lots of time. Sometimes that planning can be in vain because changes have to be made. So while it’s important to spend time planning, it’s also important not to spend too much time planning.

Overall, I have learned a lot from making this game, and I the quality of planning, design and implementation of my future games will be much better as a result. I can make plans and improve upon them during development, and write well-optimised code.

## References

#### Inspiration for game idea

**Theme:** [*Spongebob Squarepants*](http://www.nick.co.uk/shows/spongebob-squarepants/) (TV cartoon series), [Stephen Hillenburg](https://en.wikipedia.org/wiki/Stephen_Hillenburg), 1999, [Nickelodeon](http://www.nick.co.uk/shows/spongebob-squarepants/)  
**Game/puzzle mechanics:** [*Day of the Tentacle*](https://en.wikipedia.org/wiki/Day_of_the_Tentacle) (point and click adventure game), [Tim Schafer](https://en.wikipedia.org/wiki/Tim_Schafer) & [Dave Grossman](https://en.wikipedia.org/wiki/Dave_Grossman_(game_developer)), [Lucasfilm games](https://en.wikipedia.org/wiki/Lucasfilm_Games)

#### Graphics and sound

The following assets were made entirely by me:

**amoeba/\*.png  
ball.png  
cupboard-door-closed.png** (part of background 2) **cubpoard-door-open.png** (part of background 2)  
**door.png** (part of background 2) **door-open.png** (part of background 2) **fork.png fork-stuck.png  
gin.png  
key.png  
pickup.bmp  
pickup-clicked.bmp  
recipe.png  
si9.png  
panel.png** (part of background 3) **picture.png  
picture-broken.png  
whiskey.png  
wine-red.png  
wine-white.png**

The following assets were edited by me, but the original source is not mine:

**fish-eating-soup/\*.png:** Fish NPC from *Spongebob SquarePants: Legend of the Lost Spatula* ([spriters-resource.com/game\_boy\_gbc/spongebobsquarepantslegendofthelostspatula/sheet/15302](https://www.spriters-resource.com/game_boy_gbc/spongebobsquarepantslegendofthelostspatula/sheet/15302)). I changed his colour and top fin shape. I also gave him big red lips, moved his legs forward to make him sit down, animated his arm and gave him a spoon to eat soup with. I altered his shoes slightly and made his eyes look forward instead of backwards. I made his eyes bulge out and soup come out of his mouth when he spits out the player.  
**fish-chef/\*.png:** I copied the fish eating soup, then made him a different colour and gave him a ladle, white chef hat and chef uniform. He can walk around, unlike the fish eating soup. I made his pupils disappear and stars circle around his head when he tastes the spiked soup. I had to make him taller and the stove shorter so he could reach the soup. I also replaced the drawers in the corner with a deep frier.  
**bg1.png:** Re-drawn version of this picture: [en.wikipedia.org/wiki/File:Krusty\_Krab\_interior\_50b.png](https://en.wikipedia.org/wiki/File:Krusty_Krab_interior_50b.png) (source: Spongebob Squarepants S03E10b: Krusty Krab Training Video). I changed the floor colour to light blue to bear less resemblance to the Krusty Krab, and because I think it better suits the marine theme.  
**bg2.png:** Re-drawn version of this picture: [spongebob.fandom.com/wiki/Employee\_of\_the\_Month/gallery?file=Employee\_of\_the\_Month\_036.png](https://spongebob.fandom.com/wiki/Employee_of_the_Month/gallery?file=Employee_of_the_Month_036.png) (source: Spongebob Squarepants S01E12b: Employee of the Month). I added a spilled sack of potatoes so the player can climb up and walk up to the pot of soup.  
**bg3.png:** Re-drawn version of this picture: [reddit.com/r/vexillology/comments/c35z6n/could\_somebody\_identify\_the\_flags\_in\_mr\_krabs](https://www.reddit.com/r/vexillology/comments/c35z6n/could_somebody_identify_the_flags_in_mr_krabs/) (episode unknown). I designed the computer monitor myself, which looks like a ship’s wheel.  
**money.png:** I downloaded a picture of a £5 note from [bbcchildreninneed.co.uk/2017/12/rare-british-five-pound-note-to-be-auctioned-in-aid-of-bbc-children-in-need](https://www.bbcchildreninneed.co.uk/2017/12/rare-british-five-pound-note-to-be-auctioned-in-aid-of-bbc-children-in-need/) and reduced the size to a teeny 30x16 pixels.  
**boing-plop.ogg:** Made from these sounds: *cartoon spring sound effect 2016* ([youtu.be/F4c4BBYiYjo](https://youtu.be/F4c4BBYiYjo)), *Water Droplet – Sound Effect (HD)* ([youtu.be/bCPKfDOYyOc](https://youtu.be/bCPKfDOYyOc)) and *Spitting drink 02 – Sound FX (HQ)* ([youtu.be/Kx-t-xiXMfg](https://youtu.be/Kx-t-xiXMfg)). I had to combine them into one sound file because Adventure Game Studio has issues when trying to play sounds in quick succession.  
**glass-break.ogg:** *Wine bottle breaking sound effect (HD for video editing and games)* ([youtu/be/Ebe7uS3IF2Y](https://www.youtu/be/Ebe7uS3IF2Y))  
**passout.ogg:** *Dead body hitting ground sound effect* ([youtu.be/9M8HHCsc-cc](https://youtu.be/9M8HHCsc-cc))  
**splat-slide.ogg:** Made from these sounds: *Cartoon Splat Sounds Collection* ([youtu.be/lO7jKIVk8Zo](https://youtu.be/lO7jKIVk8Zo)) and *Squeaky Glass | HQ Sound Effects* ([youtu.be/3y9hu6-UcE8](https://youtu.be/3y9hu6-UcE8)).  
**town.ogg:** The music is town.mid, played on an OPL3 FM synth ([youtu.be/8bC\_hDutK9E](https://www.youtu.be/8bC_hDutK9E)). The original midi file was composed by Nathan Grigg and can be found on Windows 95 and up.