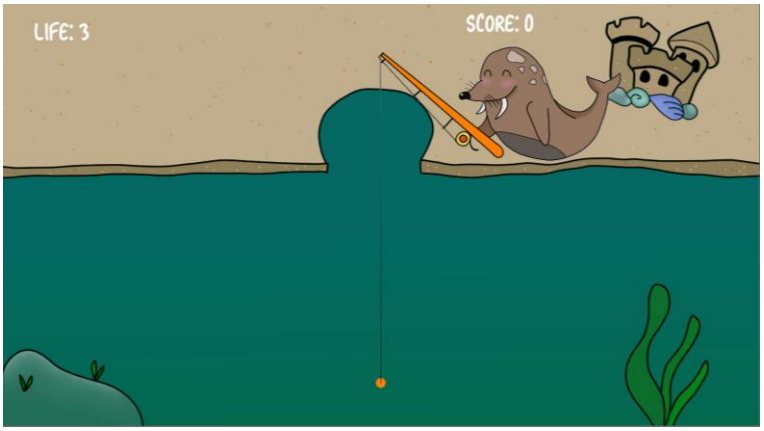


OCEAN RESCUE

Prototype 2_WSOA3004_assignmnet 2

Jade Watermeyer 1840965. Gift Maposa 1689870. Ivan Van Staden 1838664. Shravan Jugrum 1939615. Thalia Delport 1348966

Contents

Group members.

Project manager

Jade Watermeyer

1840965

Completed design documentation for project

Designer

Gift Maposa

1689870

Helped programmer with the development and tweaking of game as well as implantation of assets, contributed designer process of documentation.

Programmer

Ivan Van Staden

18838664

Completed the programming of the game, as well as worked on implantation of assets of the game. Contributed technical process of documentation

Shravan Jugrum – *has taken on the **sound** aspect for the game*

1939615

Completed and implanted sound of the game. Contributed sound process of documentation

Thalia Delport – *has taken on the **art assets** for the game*

1348966

Completed art assets for the game. Contributed art creation process of documentation.

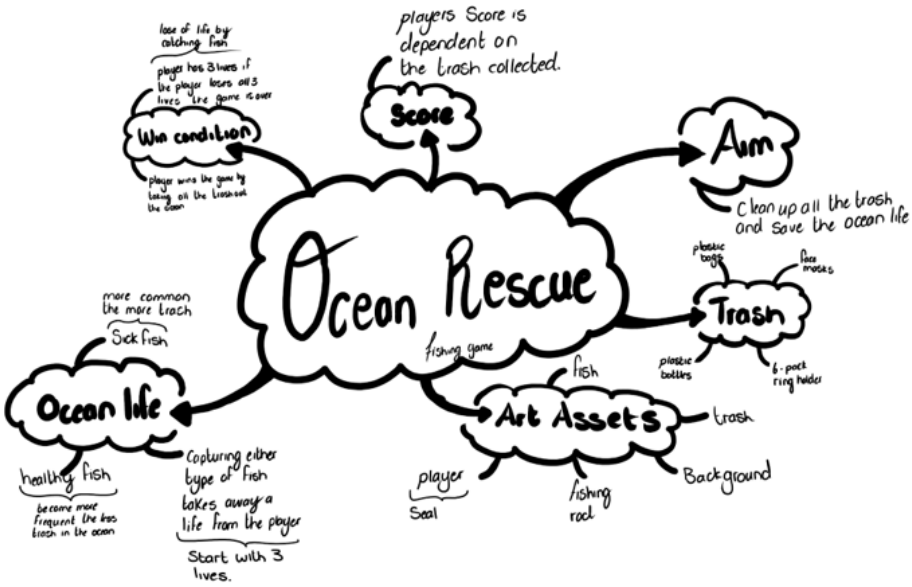
Title

Ocean rescue

Game overview

Game concept

Save the ocean wildlife by clearing out the trash



Genre

Mini fishing type game

Target audience

+12 with access to a laptop, cell phone or PC

Game flow summary

Player uses the mouse to direct the hook of the fishing rod up and down. The player must collect as much trash as possible without catching any wildlife, if the player catches wildlife, they will lose a life. If the player loses all 3 of their lives the player dies.

Look and feel

Simplistic and smooth controls.

Why this type of game?

The team decided to make this type of game as it is quick to develop in such a short period of time. It also creates short entertainment periods for players who just need something to do for a brief period of time.

Why the theme?

Just because the game is designed to be played for brief period of time does not mean that the player wont subconsciously remembers the message of the game. The message of this game is to clean up the ocean. Ocean pollution is a real issue that need to be addressed, if the player can enjoy playing a game that demonstrates cleaning up the ocean they might physically go and start doing something about the pollution like picking up trash that they come across.

Game play and mechanics

Design process of development from the designer

From a designer's perspective after we had decided on the theme of the game, their focus was on coming up with a gameplay loop that is intuitive and fun to play. Since the team had decided on making a collection based game, some ideas for the gameplay loop involved reaching and end goal, where the game would end if the player has successfully cleaned the ocean or making the game score based where the more trash collected the more points the player would be awarded. The team decided on the latter because it had more potential for improvement and more rewarding for the player. This illustrated by phase shifts in the game where the ocean would get cleaner over time resulting in an increase in fish spawning and the game became progressively more difficult over time with less trash spawning. The game was programmed in such a way that it made it easier for the designer to tweak values and spawn rates to find a balance between how trash and fish spawn, so that it feels fair and paces well with the game. Overall, the design process was good, the designer worked closely with the programmer to ensure that everything worked as intended.

Gameplay

Game progression

As the player collects trash the ocean wildlife will become healthy and become more frequent in the game making it more difficult for the player.

At the start of the game the player will find themselves with a dark and green looking ocean with sad sea-life, as the player starts to remove the trash from the ocean it starts to change, the background will change and start to show that it is clearing up and the sea-life will begin to look happier (hoping that this aspect will create a positive reinforcement in the player- physically and visible improvement from their actions)

Mission/challenge

The mission of the game is to clear all the trash or as much as possible from the ocean to help the ocean and its sea-life. By catching and collecting the trash that they come across,

Objective

Clean the ocean and make the wildlife healthy.

We want the player to feel as if they are helping the sea-life and doing the right thing by cleaning up the ocean and as such the player can see the environment and sea-life changing as they progress through the game.

Play flow

Player uses the mouse the move the finishing line and collect trash.

Mechanics

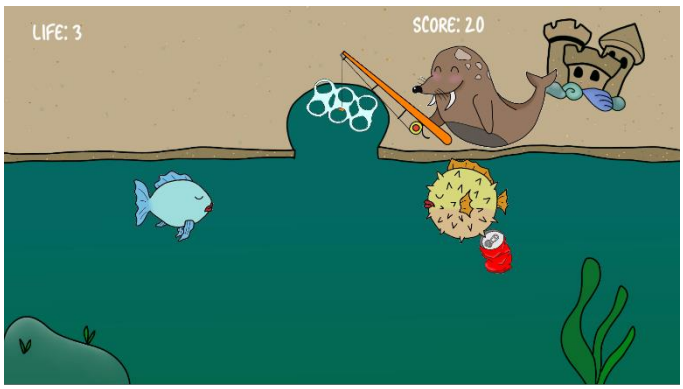
Technical process of development from the programmer

From a technical standpoint, the game and its underlying mechanics were not difficult to develop, as such the underlying code base was developed with the idea of scalability. Since not a lot of resources were needed to make the mechanics, a lot more of the programming resources were put into making the code base reliable and accessible to changes. What is meant by accessibility was the games ability to scale with additional changes to core values and game objects. This is best illustrated by the spawner system for the fish and trash. All fish and trash objects inherited from the same movement script which allowed uniformity when it came to setting specific setting like the direction of movement when the objects spawned. The spawner object itself would hold directional values and thus pass those values down to objects it spawned in a consistent way. This combined with the use of dynamically scaling arrays which acted as a spawn table that could easily be added to by dragging new types of game objects into said table. This allowed the designer to spend more time tweaking gameplay values and adding additional spawnable objects, then having to work around a rigidi system that would need to be manually changed by the programmer to accommodate changes the designer required.

Movement in the game

Objects

Player can interact with all objects found below their character. i.e. the fish, scissors, extra lives, and trash. Each object has a different effect on the player. Fish and scissors cost the player lives while the extra lives restore one of their lives and the trash gets the player points.



Actions

player uses the mouse to direct the fishing rod up and down.

The player positions the hook of the line with the use of the mouse, if the player positions the mouse properly, they will collect an item from the ocean and real it in by moving the mouse upwards towards to surface. The player must then left click to release/collect the trash which will accumulate a player score. If the player loses a life, they can simply left click to activate their next life.

Combat

Player must avoid the scissors that will try and cut the line of the fishing rod.

Scissors are something everyone goes through pretty often especially as a child, we out grow them or lose them, thus they get forgotten about and left, this could have several outcomes of being found and returned, recycled properly or simply being thrown into the nearest spot which could be the ocean. The use of the scissors also shows how dangerous they can be- if they are able to cut the player line imagine what they are doing to the sea-life.

Economy

The player starts off with 3 lives and can collect new lives if the player has lost lives.

The player has 3 lives as it is a game after all, and players tend to lose interest quicker in games that end quicker than others. One might say that it could also appeal to ones forgiving aspect of 'yes the player made a mistake, let us not doom them for it' and let them try again. However, if the player continues to complete the wrong tasks they will be 'punished' (the game will end).

Game options

Replaying and saving

Replay is available as the objects in the game spawn differently every run of the game. There is not a saveable state per-say but the device on which you are playing the game will save and keep track of the players high scores.

Story, setting and character

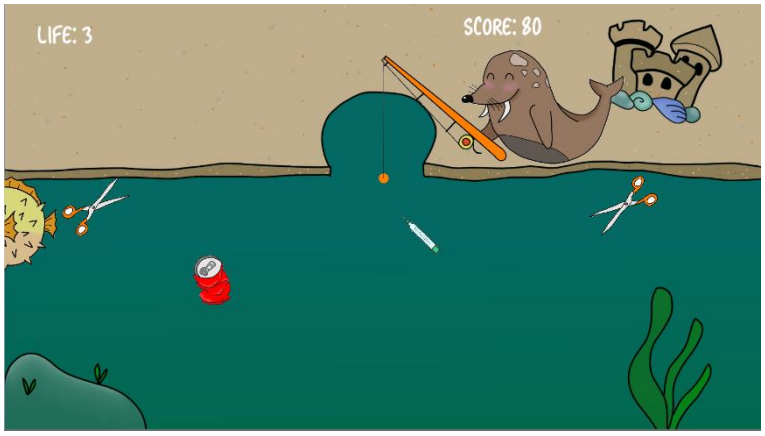
Story and narrative

The ocean as become polluted by the humans and the sea wildlife is struggling to survive. A lonely seal has taken it upon itself to help its fellow wildlife by trying to clean up all the trash that the humans have dumped in the ocean.

Game world

Simple game world consisting of a background, a seal fishing in the ocean.

The art is very simple to allow the player to identify each object quickly.



Characters

The player is represented by a seal that is cleaning up the ocean.

Refer to game art

Levels

Levels

Levels

The game does not have designated levels, but the games difficulty does change throughout the game as the player collects more trash. The game is meant to become more difficult as the less trash there is as there will be more wildlife. As well as when the enemies appear as they can decrease the players lives.

Level layout

Refer to game world for integrated look of game.

Tutorial

A tutorial is available for the player at the beginning of the game to show the player how to play the game.

When the game starts the game will display how to play guides at the bottom of the screen.

Interface

Visual system

There are no menus for the game as it jumps straight in after loading as the player cannot die upon loading the game. And the player does not need to pause the game as moving the fishing line above the ground level is essentially pausing the game

Control system

The player plays the game with the use of a mouse. The curser will determine the position of the hook of the fishing rod on the vertical plane. The player will also make use of the left click to release/ collect the trash that is on the hook and to use a life if the either catch a fish or if the scissors cut the line.

Audio, music, sound effects

Sound development from the sound engineer.

The sound effects used were chosen as they thematically complemented the games art assets. This was the main goal when working on sound. The sound engineer pitched down the treble that every sound effect, as well as the background music, would sound like was underwater to fit the oceanic theme of the game. Most of the sounds were recorded by me (unless credited). The background song uses a sample (credited below). The sound was used as it provided a melody that is interesting enough to add to the game aesthetically but not to the point that it became overwhelming for the player

Credits

Background sample found at https://freesound.org/people/LogicMoon/sounds/331346/

Artificial intelligence

Opponent and enemy AI

There are enemies in the game that will try and cut the fishing line and cause the player to lose a life increasing the difficulty of the game.

The fish are also technically an enemy as they cost the player lives if they catch them.

Technical

Target hardware

Laptops, PC, or cell phones

Development hardware and software

Unity was used for development of the game.

Network requirements

The player does not need a network in order to play the game.

Game art

The objects that are depicted in the game are not random objects chosen, majority of them are real causes of ocean pollution. Plastic bottles have always been an issue along with can rings and plastic bags. Straw pollution increased dramatically a few years ago along with needles, and with today's pandemic masks are nearing the top contributors to ocean pollution.

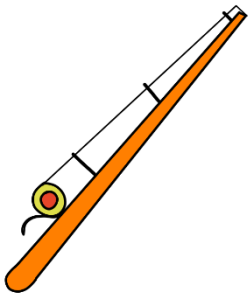
The player character is not represented by a human for 2 reasons. The first being that none of the group members could depict a decent looking human, and second in an attempt to access the subconscious guilt that humans have about damaging living creatures. If the sea creature can do it why can't the player?

Artwork development from the artist

From an artistic/ illustrative perspective the art assets were not difficult to make once the group decided on a theme, and what assets were needed. It took about 2 days to complete the assets. The illustrator chose to use a style which they are familiar with as they do not illustrate often. The fish and trash were drawn first as there were 6 types of each, the seal was then drawn, along with the 3 versions of the backgrounds which are all used. The final assets that were created was the fishing

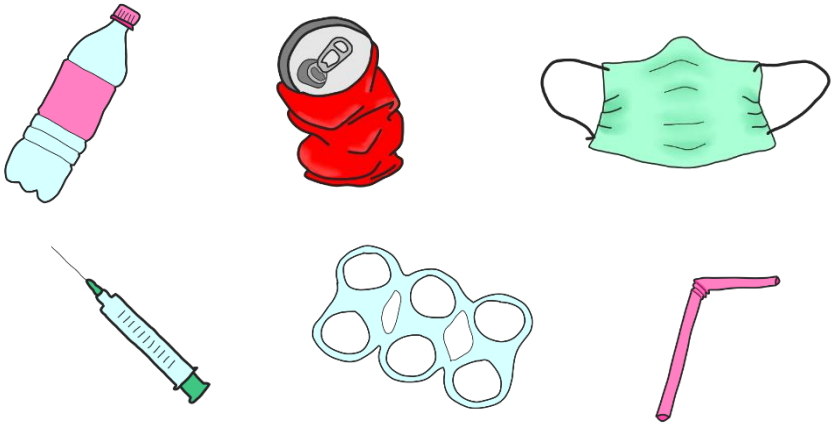
rod and the scissors. The art assets were implemented by the programmer and designer on Wednesday evening.

Player

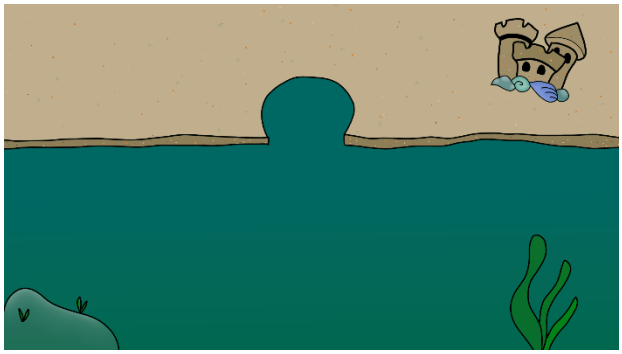
Objects to avoid

Objects to collect

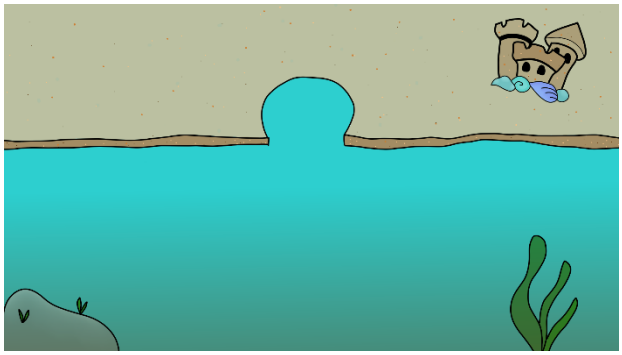


Background

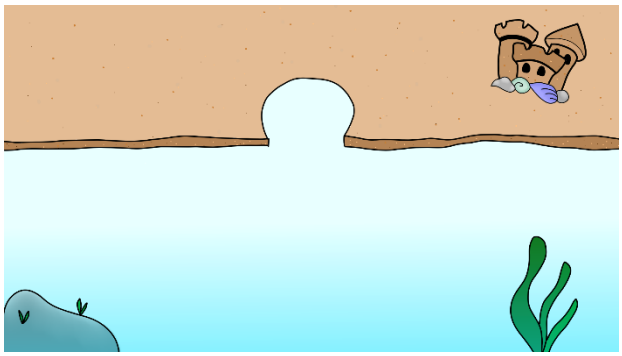
Start of game ocean state



Middle of game ocean state



End of game ocean state



Communication

Discord

27/07

First meeting for prototype

Gift absent- power outage. Joining on phone.

Theme chosen

Mini game based off fishing

Theme is ocean clean up- player has to collect trash found in the ocean. The player will lose lives if they catch a fish. The player represented by a seal with a fishing rod. Aim of the game is to clear the ocean.

Layout and deciding on aspects of the game.

29/07

Meeting to touch base and view all that is happening (get back on the same page)

Whatsapp

27/07

Getting discord information to set up group for meetings.

When to hold meeting on discord set for 12:00.

Display of game development in video format. Deciding what to add and whether or not it worked as intended.

28/07

Check in of progression- how far people had gotten with their work loads.

Display of artwork in photo form- asking if everyone was happy with what was produced

Decision on background look.

Asking for artwork that had been completed.

Line rendering issue discussed and resolved.

29/07

Reminder of tutor meeting

Discussion on environment progression through playing the game.

Activity log- how far everyone was in their workload

Start of implantation discussion and how to achieve it smoothly

Notifying of google doc availability

30/07

Activity log

Asked all group members to write about their sections of work- process

Notes on things to change in the game- integration almost complete waiting for sound.

Google docs

Sharing of documentation

29/07

Group members added on their process sections to document

Github

Game sharing

Implementation was done by certain people and changes were done and pushed to master

Email

Used to share asset folders between programmer, artist and project manner.