

# Design/Justification document

Team number: 24

Team name: Yes!

Product name:  
Shimmering Shallows'  
Fishy Fun Times

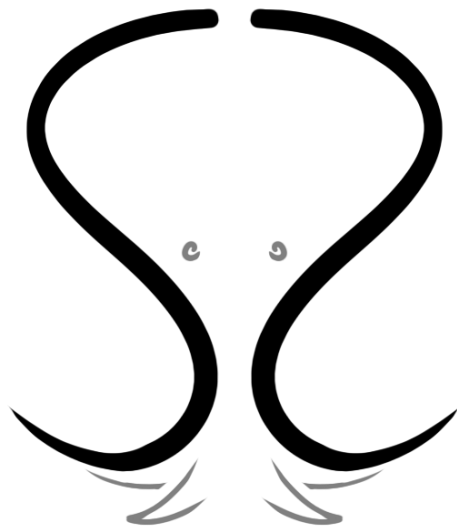
Date: 15.05.2020

<b>INTRODUCTION</b>	<b>3</b>
<b>CLIENT DESCRIPTION</b>	<b>3</b>
<b>RESEARCH QUESTIONS</b>	<b>4</b>
<b>OTHER CONCEPTS</b>	<b>4</b>
<b>FINAL CONCEPT: (JUSTIFICATION)</b>	<b>4</b>
<b>FINAL CONCEPT: CLIENT RESEARCH</b>	<b>5</b>
<b>FINAL CONCEPT: TARGET GROUP RESEARCH</b>	<b>5</b>
<b>FINAL CONCEPT: ARTISTIC DIRECTION</b>	<b>6</b>
<b>FINAL CONCEPT: GAMEPLAY</b>	<b>6</b>
<b>CHOICE OF FISH</b>	<b>7</b>
<b>THE IN-GAME ECONOMY</b>	<b>7</b>
<b>TESTING</b>	<b>7</b>
<b>FINAL CONCEPT: PROMOTIONAL SOLUTIONS</b>	<b>9</b>
<b>WEBSITE</b>	<b>9</b>
<b>POSTER</b>	<b>13</b>
<b>TEAMWORK &amp; TASKS</b>	<b>13</b>
<b>JUSTIFICATION</b>	<b>14</b>
6 MAY	14
7 MAY	16
8 MAY	19
11 MAY	22
12 MAY	24
13 MAY	27
14 MAY	29
15 MAY	32
<b>INDIVIDUAL REFLECTION</b>	<b>34</b>
<b>TEAMWORK REFLECTION</b>	<b>37</b>

## Introduction

### Client description

Our client would be a typical big aquarium holder (Shimmering Shallows) which would have to close during the COVID-19 situation. The aquarium would have a big choice of animals from different kind of waters and it would have the goal of educating about water wildlife and its preservation.



Shimmering  
Shallows

## Research Questions

(in the context of your client)

- Search for examples of different organisations and how they tried to keep in touch with their audience during the corona lockdown.
- What do you (need to) know about your client and their target group?
  - Our target group is very young: their age is approximately between 8 and 16 which means that we must convey the information in an easily understandable manner and not make it boring to the consumer by forcing it.
- What does an interactive application need for people to return/keep playing/stay interested?
  - Our idea is a simple progression system in which the user unlocks more fish while he is playing the game by collecting currency. This currency can be used in a shop to buy these new fish and new aquariums. This also makes the educational purpose easier by slowly adding more information.

## Other Concepts

Concept 1:

Arcade. The idea was to create a game-like museum (like Namco museum) where the player could walk around playing different old arcade games, but we thought it's too generic and hard to make since we would have to make all of the games

Concept 2:

Travel agency. Visiting different places digitally while learning about different places

Concept 3:

Restaurant/Bar. The idea was to allow people to build their order by playing a small Minigame in which they would have been gotten a different order based on what they did in the game.

Concept 4:

Zoo. A trivia game in which the player unlocks different videos of animals if they can answer basic trivia questions about animals in the zoo.

## Final concept: (justification)

Aquarium. Our final and chosen game concept is a game in which the user must take care of their own aquarium. They do this by feeding fish and cleaning the aquarium. This way they gain coins which they can use to buy new fish and new aquariums. They also can learn about the fish by reading in a journal about it. We went with this concept as all of us saw the possibility of creating an educating game with the limited possibilities set by the GXP engine. The concept combines a lot of already existing gameplay mechanics from other games like Cookie Clicker and

Adventure Capitalist with an educational aspect. This idea has not been done in a similar way and brings some unique challenges with it. And so we present Shimmering Shallow's Fishy Fun Times



### Final concept: client research

Our client is a generic aquarium with different kind of fish and other creatures to look at. The targeted client would be well of aquarium with a focus on education which would now have to close due to the corona lockdown measure. Examples of this would be:

- Seaworld
- Sea Life Centre
- Ecomare

### Final concept: target group research

We did extensive research into our target group before we started ideating on a game concept. We looked at existing real-life aquariums and the research they have done into their target group and applied this research into our own design. An example research was the study conducted Association of Zoos and Aquariums <https://www.aza.org/partnerships-visitor-demographics>

Their research concluded that

- 50% of adults visit an aquarium with a child
- 57% children 11 and under
- Average visit is four hours

These results helped us make crucial design decisions such as the art style, the game play and others

We used the Design Thinking Process while working on the project to shape substantial design decisions.

- Empathize
  - Age:
    - Our target group is mostly under the age of 12, with most of them having low attention span. The game shouldn't have

long waiting times or there should always be something to keep the user interested

- Spending power
  - Low spending power on their own
  - Children with access to technology often have parents with disposable income
- Access to technology
  - Computers
  - Smartphones
  - Tablets
- Define
  - Children should be able to learn about exotic fish and sea creatures from home
  - They should be entertained and kept interested while still learning
- Ideate
  - We created numerous different concepts described above
- Prototyping
  - Numerous prototypes were created
  - Prototypes were created using both Marvel App and GXP engine
- Testing
  - Testing was conducted with some people but due to current situation we couldn't test with our target group

## Final concept: Artistic direction

The art style we went for is very light on lines and uses a lot of soft brushes to try to go for a photorealistic look when it comes to the depictions of the fish and the aquariums. We did this as we wanted to simulate the experience of going to an aquarium as much as possible and as the visual experience of looking at the creatures is the main part of it the visual design should be as close as to reality as possible. But we also considered our target audience while designing the game as we wanted to keep the UI and Layout simple enough so that a small child would be able to understand and use it.

## Final concept: Gameplay

When we looked at an aquarium and its most important “function” we clearly saw that education is a big part of the aquarium experience besides looking at the fish itself. So, we decided that learning about different kind of fish will be a big part of the game. This works via a journal where you unlock new journal entries when you buy a new fish. While the information is not directly displayed, the player has time between different tasks to open the journal and read information about the fish he now owns. Since the entries are unlocked one after another, the player doesn't get

overwhelmed with every information at once which makes remembering information a lot easier.

The Main Gameplay loop of our game will start with the player buying a fish which he now has to clean and feed. If he does so, the fish will produce money that the user can pick up to buy another fish. This new fish will produce more money than the old one as the price of the next fish always increases, giving the player a feel of progression.

## Choice of fish

The progression is also visible to the player as the fish and the aquariums become increasingly more interesting/colourful as the player progresses.

The choice of which fish and what kind of aquarium to use was quite important as this would be the most driving factor behind trying to encourage the player to stay with the game. The player starts out with some bland looking fish but quickly unlocks more interesting fish in the fresh water tank. This also encourages the player to stay hooked as they want to find out what new interesting fish, they will unlock next.

## The in-game economy

Balancing the in-game economy was quite a long and very important task as it will dictate the speed at which the game progresses and how stressful the game will be in the end. There were numerous values which had to be accounted for while balancing the game as a lot of them were working correlating which each other:

- Price of each fish
- Price of each aquarium
- Production rate of each individual fish
- How fast dirt gets spawned
- How fast fish get hungry

The two main challenges were to balance the dirt spawning rate and how fast do the fish get hungry in a way that it is still manageable with more than one aquarium and to scale the prices and production rates in a way that the player does not get bored / overwhelmed. This was quite a time-consuming task which took quite a lot of testing as the issue was either that the user got bored quickly at the start while just waiting for more money or the user getting too much money too fast as the player gets more than 10 fish. This was especially important when thinking of our target group as children in that age range are known for their low attention span.

## Testing

We created numerous prototypes using different services to test our game. Two different Marvel prototypes were used to test the UI and Menu layout which gave us great insight into how the user interacts with the game.

Link to the Marvel Prototype: <https://marvelapp.com/4fjg5eh/screen/68974010>

We also tested using the GXP engine by allowing testers to test with different work in progress versions of the game.

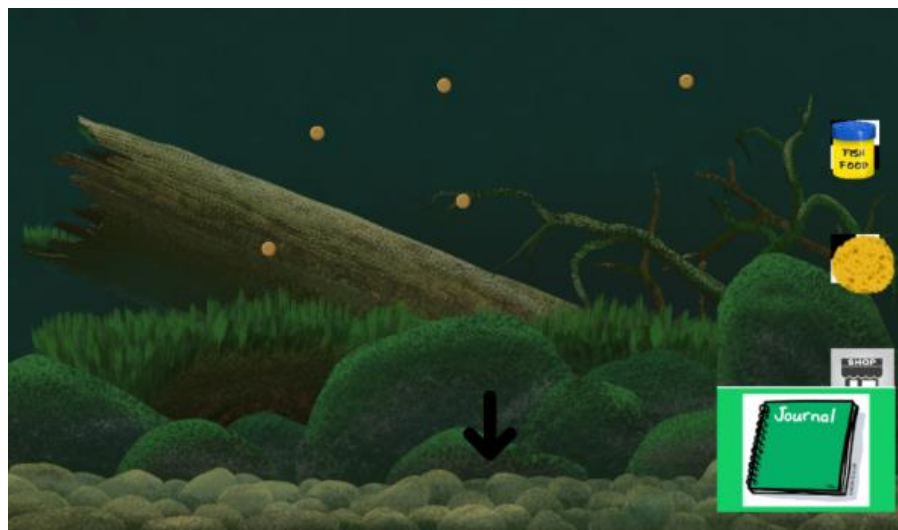
We did have some trouble finding testers which would fit into our age range as none of us had a younger sibling or other relatives close enough to be able to test with them due to corona lockdown. All our tests had to be conducted with people outside of our target group which might have skewed with our test results.

We conducted about 5 different tests in general:

- 2 with the marvel prototype
  - Tests were conducted with 2 of Max's roommates
  - Mostly to test out the UI and the Layout
  - Test setup was very basic with us giving the play testers some tasks to fulfil and us asking them these 3 questions afterwards:
    - Did the placement of the items at the top feel natural to you or would you place it in a different position?
    - Where you at any point confused about where in the menu you are currently located?
    - Do you think the size of the screen is adequate?
  - First tests made us redesign big parts of the Layout inside of the Aquarium
  - Layout before the redesign



- Layout after the redesign:





- The icons were moved to the right and the size of the aquarium was increased as testers noted that they felt that clicking in the top felt unnatural and player noted that they thought the aquarium could take up more space on the screen as it is the major attraction
- 3 with the GXP prototype
  - 1 of them was focused on testing out general gameplay
    - Also conducted with Max's housemates
    - Test setup was again very basic with us giving the play testers just the game and then and us asking them 3 questions afterwards:
      - Was it clear to you what to do and how to progress?
      - Did any interaction seem forced and did you like the way the fish interacted and moved?
      - What is some general feedback you would like to give?
  - 2 long test sessions were just focused on balancing the different values for the shop and other mechanics
    - These tests were conducted a bit differently with me recording how long people took to finish each aquarium and the asking questions later.
    - Questions were mostly about if the player was bored during the gameplay or if gameplay became too hectic at one point
    - Results were summarised by me in the part about the in-game economy

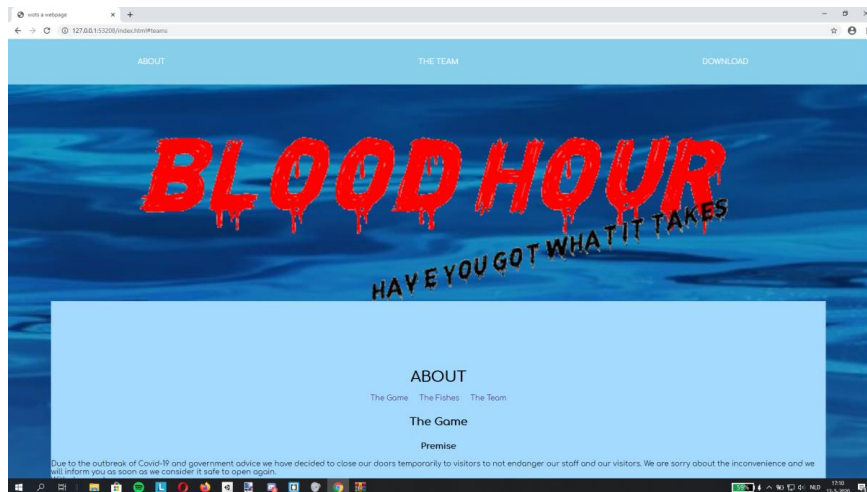
## Final concept: promotional solutions

### Website

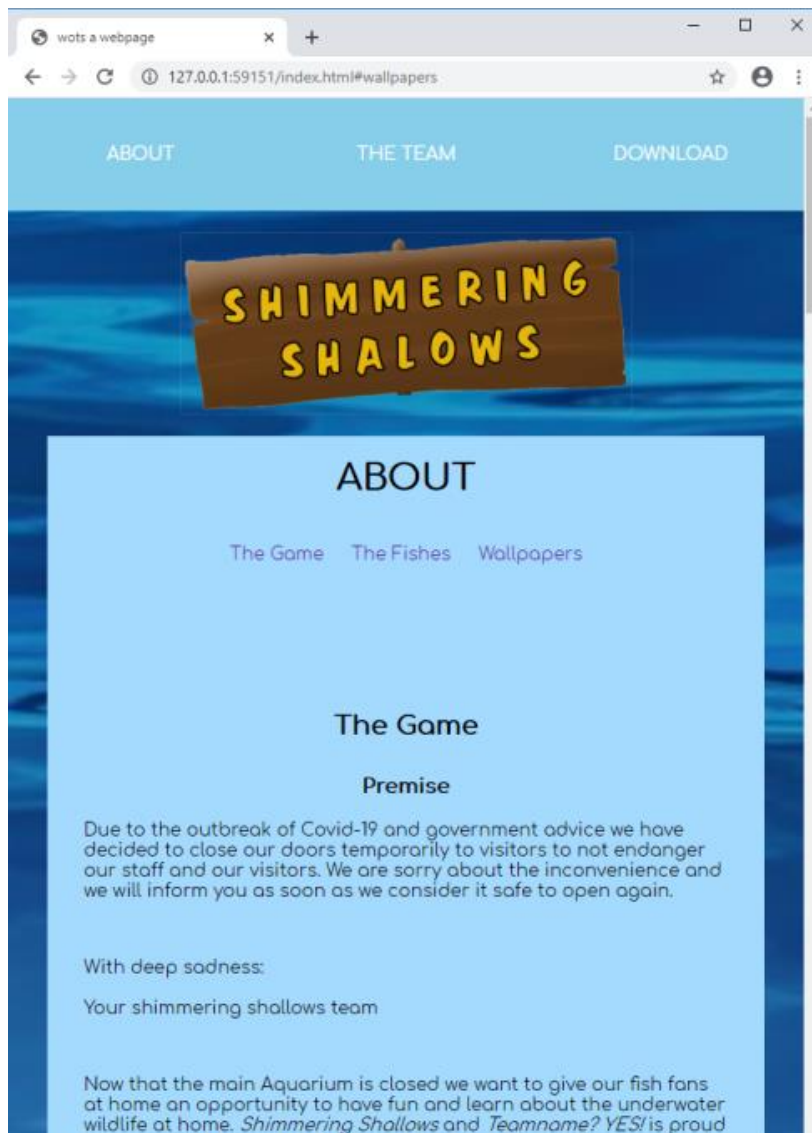
The website has a relatively simplistic design, with a header having menu buttons redirecting to another part of the website. General content includes a short explanation about the current situation, the features of the game, some gameplay footage, a short tutorial/explanation of the game, and some of the fish from the game. At the end of the website there's a picture of the team members, and a download link for the game. General colour scheme used is blue, with white text used for the main navigation bar, and black for the rest of the website. Green is used for feedback when the user uses the navigation buttons. The font used was Comfortaa, which makes it easy for the eyes.

TESTING: Testing was made with several people, including some team members (artists and designers who in turn gave some advice about what colours to use and how to position certain things)

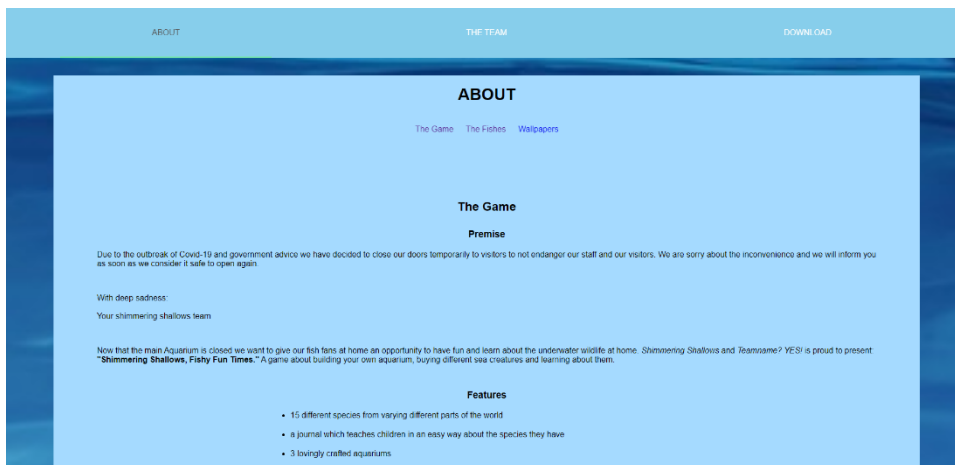
## ITERATIONS:



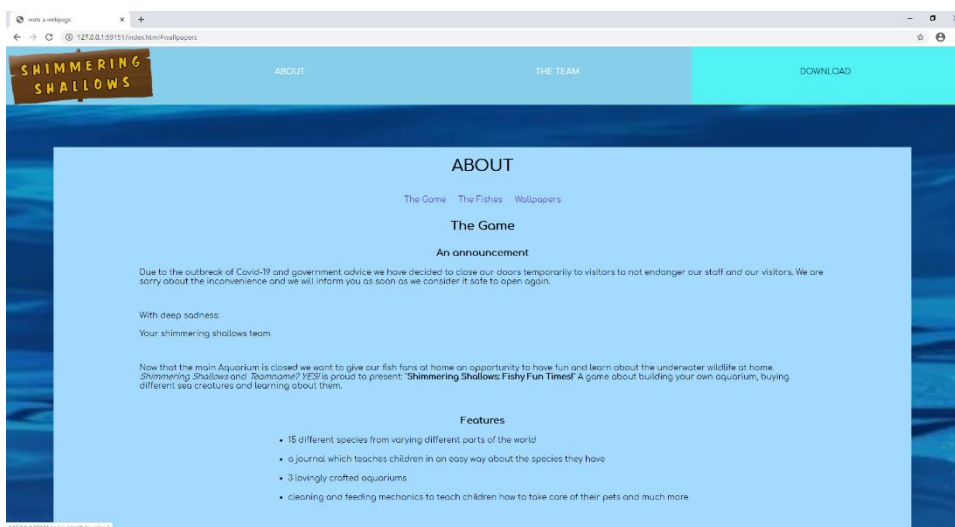
- This is the first version of the website. General criticisms included that the title image is way too big

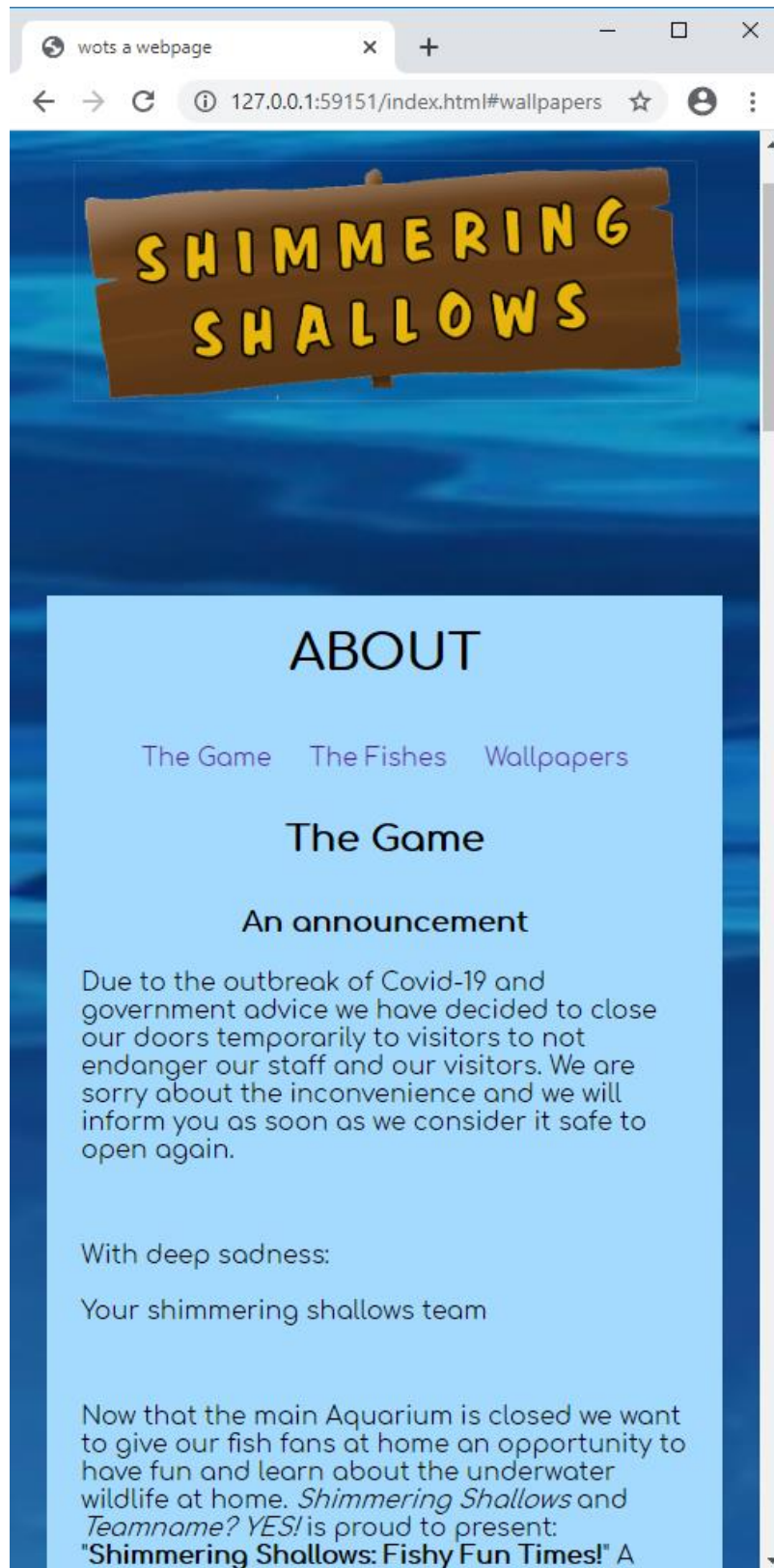


- The "About" text had way too much space above it



- In the second iteration the space below the “About” section was way too much
- The large image was still an issue





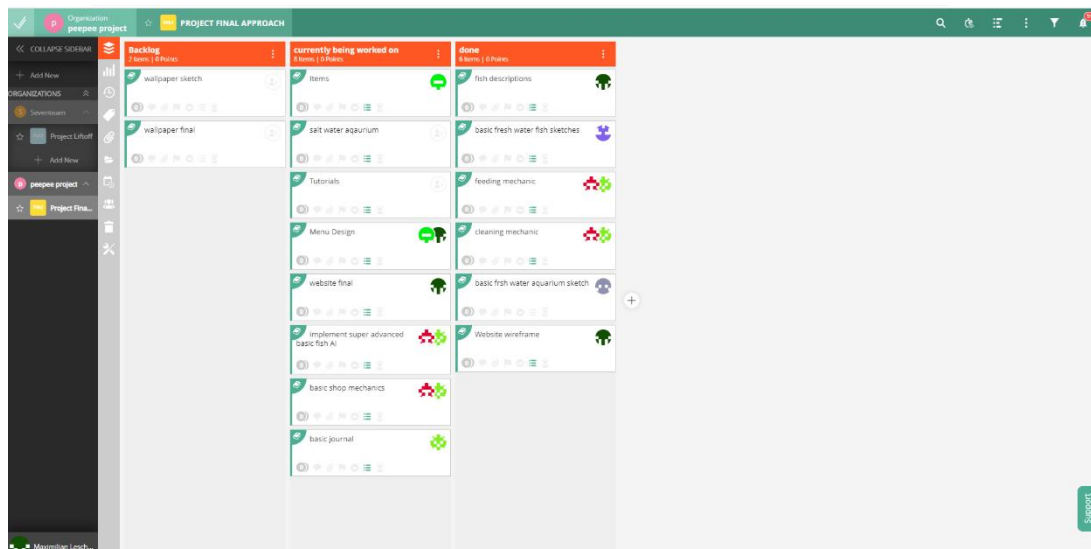
- In the final iteration, the image was left in the mobile version only, while when in desktop, the image moves up in the navigation bar.
- The about text was addressed and space was kept at a minimum

## Poster

To begin with, the poster should stick with our topic and be simplistic and the idea should be easy to be perceived. Since our game is family friendly and the target group is mostly children, they should easily understand what the poster is about. The art style of the poster is the same that we used for in-game art. It also shows some of the fish, so the audience can understand it is related to fish mostly. Colours are bright and warm, which matches most of our content. The font is close to what actual zoo's use for their aquariums' posters. It is called "AQUA". I also included some silhouettes of people, so the audience instantly should be able to understand that this is an aquarium. There is one grown up figure, since some grown-ups are still part of our target group, considering toddlers mostly go to an aquarium with their parents. There are also silhouettes of children, which are our main targeted audience.

## Teamwork & tasks

We used vivify scrum to organize our teamwork and create an even distribution of tasks



Valentin Dimitrov

- Task: Engineer
- Assignments: Journal, Scene management, implementation of animations

Ana-Maria Ilea

- Task: Engineer
- Assignments: Fish AI- feeding and coin producing mechanics, scene creation, cleaning mechanics, items behaviour, inventory, options menu, currency system and shop, asset replacement

Maximilian Leschenar

- Task: Designer
- Assignments: General Design, Planning and Time Management, Design, Justification document



Boris Gospodinov

- Task: Artist
- Assignments: Background Art

Pia Bücken

- Task: Artist
- Assignments: Main Menu, UI, Icons

Yoan Darmonski (**GREEN CARD**)

- Task: Artist
- Assignments: Fish design and animations

## Justification

6 May

Maximilian Leschenar

Stand – up

- What did you do so far? Wrote every description for all the fish
- What will you do today? Create a prototype for the shop and the journal
- Did you encounter problems? No
- Do you need help? No

Expert questions

- Formulate your question
- Register the answer

Day Closure (individual)

- What did you do today? Create a prototype for the shop and the journal, solved some issues inside the team
- Did you encounter problems? some problems between member which I fixed

Valentin Dimitrov

Stand – up

- What did you do so far? Build the basic moving between scenes mechanic and journal window
- What will you do today? Merge with Ana's files via GitHub, modify the level and fish tank systems and the journal working
- Did you encounter problems? No
- Do you need help? No

Expert questions

- Formulate your question: none
- Register the answer

Day Closure (individual)

- What did you do today? Finally fixed the problems with GitHub, fixed how the level's working, as well as the fish tanks working in the background

- Did you encounter problems? Besides minor bug issues, and a lot of problems with pushing to GitHub (due to merging), no problems were encountered

Ana-Maria Ilea

Stand – up

- What did you do so far? created the fish AI, build the feeding mechanic and cleaning mechanic
- What will you do today? merge with Valentin's files, create the shop mechanics, finish the cleaning system, create the currency system
- Did you encounter problems? No
- Do you need help? No

Expert questions

- Formulate your question
- Register the answer

Day Closure (individual)

- What did you do today? Merge files, create fish unlocking in shop, finish the cleaning system, worked on currency system
- Did you encounter problems? Some issues with github. Was solved in the end.

Boris Gospodinov

Stand – up

- What did you do so far? Aquarium research, sketches, first iteration of freshwater tank.
- What will you do today? Start work on the tropical aquarium, do more research into aquariums, improve freshwater tank.
- Did you encounter problems? Not necessarily a problem, but I'm not quite satisfied with my work.
- Do you need help? No.

Expert questions

- Formulate your question
- Register the answer

Day Closure (individual)

- What did you do today? Sketches for the tropical tank, major changes to the first tank.
- Did you encounter problems?

Pia Bucker

Stand – up

- What did you do so far? created numerous designs for the start screen
- What will you do today? start work on the start screen and some hud elements
- Did you encounter problems? No
- Do you need help? No

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? started work on the start screen
- Did you encounter problems?

Yoan Darmonski

#### Stand – up

- What did you do so far? Created multiple fish concept drawings and animations
- What will you do today? Create animations for the first 5 kinds of fish we have
- Did you encounter problems? No
- Do you need help? No

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? I created four fish animations and I plan to do the last sometime later
- Did you encounter problems? Not really, but I had to do some research, based on which I created to movements of the fish (Had to watch some documentaries 😊)

#### Day Closure (team)

- Make a list of crucial decisions/choices
  - Big decisions about HUD design based on user testing
  - Currency is now dropped by the fish itself to create an element of collecting
  - We decided to go with Ana's choice of classes while merging the two codes
- Show results + conclusions to justify these choices
  - The Inventory feels a lot more natural now that it has been moved to the left and the increase in aquarium size focuses the game more on the fish which is good as they are the main feature of the game

### 7 May

Maximilian Leschenar

#### Stand – up

- What did you do so far? Created a prototype for the game and made important design choices
- What will you do today? Start work on collecting audio samples and create a wireframe for the website
- Did you encounter problems?
- Do you need help?



#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? got audio sample for most interactions wrote tutorial and other texts
- Did you encounter problems?

#### Valentin Dimitrov

##### Stand – up

- What did you do so far? Managed to finally merge stuff on GitHub, redid the scene layout, started working on journal functionality
- What will you do today? Continue working on the journal, if done, eventually start the website (and merging some more)
- Did you encounter problems? no I guess idk
- Do you need help? no I guess idk

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? I worked on linking the journal with the collected fish, as well as implementing the animations.
- Did you encounter problems? I currently have some issues implementing the journal completely (having buttons which on click show up information about the fish). Other than that, I think I don't have any other issues right now.

#### Ana-Maria Ilea

##### Stand – up

- What did you do so far? File merging, started working on the shop, finished the clean meter, almost finished the currency system and money creation
- What will you do today? finish the currency system and the shop mechanics.
- Did you encounter problems? the money creation has a weird bug
- Do you need help? I will discuss with the other engineer and see if we can solve the issue.

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? Finished the shop mechanics, added the inventory, added the aquarium buy mechanic.
- Did you encounter problems? Not yet.

Boris Gospodinov

Stand – up

- What did you do so far? Background art, research, sketches for the upcoming works.
- What will you do today? Work on the second background. Try to make the first one good enough.
- Did you encounter problems? Nada.
- Do you need help? No.

Expert questions

- Formulate your question
- Register the answer

Day Closure (individual)

- What did you do today? Finished the first tank, imported sketches for the second one, started working on composition, got feedback about the initial idea.
- Did you encounter problems? Drawing on the wrong layer...

Yoan Darmonski

Stand – up

- What did you do so far? I did the first iterations of the fish animations.
- What will you do today? I will try to improve them even more and make them consistent with the main art style. After which, I can maybe start drawing the next types of fish.
- Did you encounter problems? Not really.
- Do you need help? Nah dawg.

Expert questions

- Formulate your question
- Register the answer

Day Closure (individual)

- What did you do today? I finished the animations and gave them to the engineers.
- Did you encounter problems? My Photoshop script did not work and I had to do the sprite sheet manually.

Pia Bucker

Stand – up

- What did you do so far?
  - Made sketches for the menu screen
  - Digitised two menu screens
- What will you do today?
  - A sponge
- Did you encounter problems?
  - no
- Do you need help?

- no

#### Expert questions

- Formulate your question
  - no
- Register the answer

#### Day Closure (individual)

- What did you do today?
  - Worked on the main menu screen
  - Made a coin and a sponge
  - Started with the fish food bottle
- Did you encounter problems?
  - no

#### Day Closure (team)

- Make a list of crucial decisions/choices
  - Extensive discussions regarding use of items, tutorial structure, menu structure, gameplay flow, design and many minor things
- Show results + conclusions to justify these choices
  - Everyone now has a better vision of what the game will be which will make it easier in the long run as everyone is now creating the same concept

### 8 May

Maximilian Leschenar

#### Stand – up

- What did you do so far? got audio samples for most interactions, wrote tutorial texts and improved the prototype
- What will you do today? hopefully finally the wireframe for the website and start working on the storyboard for the trailer.
- Did you encounter problems?
- Do you need help?

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? Not what I said to do. Mostly wrote in the design document and wrote the texts for the website
- Did you encounter problems?

Valentin Dimitrov

#### Stand – up

- What did you do so far? I linked the journal with the shop so that each fish gets added when its bought + first animations

- What will you do today? Continue working on the journal + website wireframe
- Did you encounter problems? With the journal when it comes to displaying stuff but other than that not really
- Do you need help? Not for now.

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? I continued working on the journal, managed to bring up descriptions of the fish, however it is still unfinished. I made the website wireframe, as well as starting the website by having all of the features in HTML.
- Did you encounter problems? Only for the journal, other than that no.

#### Ana-Maria Ilea

##### Stand – up

- What did you do so far? Made the inventory, Fixed any issues with the currency system
- What will you do today? Create the layout for the shop, make the sprites appear on the proper layer, fix bugs, create the tutorial pop-ups
- Did you encounter problems? no
- Do you need help? no
- 

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? Create the layout for the shop which has the icons of the fish, make the sprites appear on the proper layer, fix bugs, create the tutorial pop-ups
- Did you encounter problems? Some problems with the GXP Engine's addChild() methods.

#### Boris Gospodinov

##### Stand – up

- What did you do so far? Art, visual research
- What will you do today? More visual research and sketching as corals are quite difficult to get right
- Did you encounter problems? Not yet, but the reef aquarium will definitely be a challenge.
- Do you need help? No

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? Worked on many corals. It appears I have grossly underestimated the task at hand. They are quite difficult to get right.
- Did you encounter problems? Progress is super slow.

Yoan Darmonski

#### Stand – up

- What did you do so far? I created the first tank's fish species and the sprite sheets for them. I researched the second tank's species.
- What will you do today? I will create the second tank's fish species and will start creating the sprite sheet for their animations.
- Did you encounter problems? Not really.
- Do you need help? No

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? I have created the second tank's fish species concept and based on that I started creating sprite sheets.
- Did you encounter problems? No.

Pia Bückner

#### Stand – up

- What did you do so far?
  - Main menu screen ideas
  - A few items
- What will you do today?
  - The journal
  - Main menu
- Did you encounter problems?
- Do you need help?

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today?
  - Started with journal and tutorial
  - Continued the menu
- Did you encounter problems?
  - no

#### Day Closure (team)

- Make a list of crucial decisions/choices
  - Decided against doing a trailer because we considered it too much work for the potential outcome, when considering the current workload and corona situation
  - Made big changes and decision when it comes to the menu and UI design
  - Finally settled on a name
- Show results + conclusions to justify these choices
  - The scraping of the trailer has freed up our time schedule quite a lot which will allow us to be more relaxed and will also allow our artist to focus more on the game which will lead to more polished art
  - Since we actual have a name now we can start producing promotional material

## 11 May

Maximilian Leschenar

Stand – up

- What did you do so far? Did a lot of bug testing on the newest version and noted bugs in a designated document
- What will you do today? Write more in the design justification document and will test the layout a bit more with the marvel prototype.
- Did you encounter problems?
- Do you need help?

Expert questions

- Formulate your question
- Register the answer

Day Closure (individual)

- What did you do today? BUG testing, wrote a lot in the justification document
- Did you encounter problems? No

Valentin Dimitrov

Stand – up

- What did you do so far? I made the journal kind of work, as well as worked on the website a bit
- What will you do today? Keep on working the journal, and do the tutorial.
- Did you encounter problems? Only with the journal, as always.
- Do you need help? I could use some help probably about that

Expert questions

- Formulate your question
- Register the answer

Day Closure (individual)

- What did you do today? I did the tutorial, and worked on the journal a bit.
- Did you encounter problems? Not really, besides the journal.

Ana-Maria Ilea

Stand – up

- What did you do so far? Create the layout for the shop, make the sprites appear on the proper layer, tried to implement the tutorial
- What will you do today? implement the sounds we currently have, add a button to close the shop easier, implement the first tank image and set boundaries for the objects.
- Did you encounter problems? I couldn't really do the tutorial. It was messy code and overall complicated to do
- Do you need help? I talked to the other engineer and he will try to do the tutorial, while I will focus on the main menu.
- 

Expert questions

- Formulate your question
- Register the answer

Day Closure (individual)

- What did you do today? implement the sounds we currently have, implement the first tank image and set boundaries for the objects, replaced some assets
- Did you encounter problems? No

Boris Gospodinov

Stand – up

- What did you do so far? A lot of work was done on the second tank. It is almost finished. I'm quite proud of the results.
- What will you do today? Finish the reef tank. Design the HUB, start working on it.
- Did you encounter problems? Low motivation during the weekend
- Do you need help?

Expert questions

- Formulate your question
- Register the answer

Day Closure (individual)

- What did you do today? I finished the tank, designed the HUB and made a simple render in Blender to assist me when drawing.
- Did you encounter problems? Nope.

Yoan Darmonski

Stand – up

- What did you do so far? So far, I finished the concepts for the five types of fish in the first and five in the second tank. Also, I did the sprite sheets and gave them to the engineers. All the animations work good but still need some polishing, movement wise.
- What will you do today? Today, I plan to start doing the concepts for the last 5 types of fish in the last aquarium. Also, maybe I can start preparing their sprite sheets.
- Did you encounter problems? Not really, except that these fish live really deep and it is hard to find how they actually move, which gives me artistic freedom.

- Do you need help? Not really.

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? I finished the last five types of fish's concept artwork and started preparing the sprite sheets. Hopefully tomorrow I will have them finished.
- Did you encounter problems? Not really.

#### Pia Bucker

##### Stand – up

- What did you do so far?
  - Finished the tutorial background, coin
- What will you do today?
  - Main menu
  - items
- Did you encounter problems?
- Do you need help?

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today?
  - Finished the main menu
  - Made food, dirt
- Did you encounter problems?
- no

#### Day Closure (team)

- Make a list of crucial decisions/choices first draft of the main hub, some layout changes
- Show results + conclusions to justify these choices

## 12 May

#### Maximilian Leschenar

##### Stand – up

- What did you do so far? Tested the layout and wrote in the justification document
- What will you do today? Start testing more and focus on balancing
- Did you encounter problems?
- Do you need help?

#### Expert questions

- Formulate your question



- Register the answer

#### Day Closure (individual)

- What did you do today? balanced both the salt and fresh water fish and the belonging store
- Did you encounter problems?

#### Valentin Dimitrov

##### Stand – up

- What did you do so far? Made the journal somewhat functional, and added transitioning music for one of the scene
- What will you do today? Keep on working on the journal and start the website.
- Did you encounter problems? Not really, besides the journal again.
- Do you need help? No

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? Finished the journal functionality, added the last set of fish (+ animations), made it so you can go back to the main menu, and added some of the missing sprites for the entities (shop etc.)
- Did you encounter problems? Again, the journal was a bit of a hassle, but I eventually figured it out

#### Ana-Maria Ilea

##### Stand – up

- What did you do so far? implement the sounds we currently have, add a button to close the shop easier, implement the first tank image and set boundaries for the objects.
- What will you do today? Fix bugs, regulate food, start working on the options menu
- Did you encounter problems?
- Do you need help?
- 

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? regulate food, finished the functionality for the options menu, prepared the code for balancing and testing
- Did you encounter problems? no

#### Boris Gospodinov

##### Stand – up

- What did you do so far? Started working on the main hub.
- What will you do today? Try to get it close to finished.

- Did you encounter problems? No
- Do you need help? No

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? Got a lot done. Finalized the 3d “sketch” in Blender. Transferred to Photoshop and started working on implementing the aquariums in the hub
- Did you encounter problems? No

#### Yoan Darmonski

#### Stand – up

- What did you do so far? So far, I finished the concepts for the five types of fish in all the aquariums. Also, I did the sprite sheets and gave them to the engineers. All the animations work good but still need some polishing, movement wise.
- What will you do today? Today I am planning on finishing the last sprite sheets and give them to the engineers. Also, if I have time, I could start working on the poster.
- Did you encounter problems? No.
- Do you need help? No.

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? I finished all the sprite sheets and concepts, as well as the poster.
- Did you encounter problems? No

#### Pia Bückner

#### Stand – up

- What did you do so far?
  - Some icons
- What will you do today?
  - Some buttons
  - New money
- Did you encounter problems?
- Do you need help?

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today?
  - Buttons
  - Journal icon
- Did you encounter problems?

#### Day Closure (team)

- Make a list of crucial decisions/choices
  - decided on further cause of action regarding the time plan
- Show results + conclusions to justify these choices
  - There was some inner team discussion about the feasibility of our time plan but clearing up our time plan to all the team members took stress out of the group behaviour

### 13 May

Maximilian Leschenar

#### Stand – up

- What did you do so far? Balancing the first aquariums
- What will you do today? balance the rest of the values and focus on what still needs to be done
- Did you encounter problems?
- Do you need help?

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? balanced the rest of the values and wrote a to do list on what still needs to be done till Friday
- Did you encounter problems?

Valentin Dimitrov

#### Stand – up

- What did you do so far? Finished the journal, started working on the website
- What will you do today? Work on the website + fix some bugs from the game
- Did you encounter problems? No
- Do you need help? No

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? Worked on the website + fix some of the bugs
- Did you encounter problems? No

Ana-Maria Ilea

Stand – up

- What did you do so far? regulate food, finished the functionality for the options menu, prepared the code for balancing and testing, replaced some assets
- What will you do today? finish the options impact, replace assets, fix any issues, implement some sprites/sounds that were not added
- Did you encounter problems? No
- Do you need help? No

Expert questions

- Formulate your question
- Register the answer

Day Closure (individual)

- What did you do today? replace assets and fixed their position, fix some issues, implement some sprites/sounds that were not added
- Did you encounter problems? No

Boris Gospodinov

Stand – up

- What did you do so far? Got most of the hub done
- What will you do today? Will finish the hub and start working on the deep-water tank.
- Did you encounter problems? No
- Do you need help? No

Expert questions

- Formulate your question
- Register the answer

Day Closure (individual)

- What did you do today? Finished the hub, did some visual research, created some sketches and started working on the deep-water tank, assisted with the improvement of the website design
- Did you encounter problems? No

Yoan Darmonski

Stand – up

- What did you do so far? Fish concept art, animations, poster, some of the items and assets.
- What will you do today? Today I plan on starting to polish some of the animations, which still feel weird. Also, I had to do some of the items and assets, like the wooden planks with each fish name and price displayed, as well as most of the icons in the options menu.
- Did you encounter problems? Not really, but for the options' icons we had to discuss, because we all had different ideas, but at the end we reached a conclusion.
- Do you need help? No

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? What I did was helping with the assets and options' icons and I created a list with the animations that still feel buggy and started repairing. I also helped with the website by sending some pictures.
- Did you encounter problems? No

#### Pia Bückers

##### Stand – up

- What did you do so far?
  - Some icons
- What will you do today?
  - Some buttons
  - Hunger icon
- Did you encounter problems?
- Do you need help?

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today?
  - Buttons for the shop and the tutorial
  - Icons
  - Improved some things
- Did you encounter problems?

#### Day Closure (team)

- Make a list of crucial decisions/choices made crucial decision towards time management for the next days
- Show results + conclusions to justify these choices

## 14 May

#### Maximilian Leschenar

##### Stand – up

- What did you do so far? balanced all values in-game made a time plan for the last days and cleared up what still needs to be done
- What will you do today? focus on the design justification document and do some bugtesting
- Did you encounter problems?
- Do you need help?

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? wrote almost everything for the design justification document
- Did you encounter problems?

#### Valentin Dimitrov

##### Stand – up

- What did you do so far? Worked on the website and fixed some bugs
- What will you do today? Fix some bugs and add final touches to the website
- Did you encounter problems? No
- Do you need help? No

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? Fixed bugs in general
- Did you encounter problems? No

#### Ana-Maria Ilea

##### Stand – up

- What did you do so far? replace assets and fixed their position, fix some issues, implement some sprites/sounds that were not added
- What will you do today? Replace assets, fix bugs
- Did you encounter problems? No
- Do you need help? No
- 

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? Fix bugs, replaced assets, added the coins, started cleaning up the code
- Did you encounter problems? No

#### Boris Gospodinov

##### Stand – up

- What did you do so far? Got a lot done on the last tank
- What will you do today? Finish the last tank and implement it in the hub
- Did you encounter problems? no
- Do you need help? no

S

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? Completed all the backgrounds, did some finishing touches
- Did you encounter problems? no

Yoan Darmonski

#### Stand – up

- What did you do so far? I have finished my animations and concept art for the fish. I also helped with some icons and menu buttons.
- What will you do today? Today, I plan to polish and finish the animations and concept art.
- Did you encounter problems? Not really
- Do you need help? No

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? I finished polishing the animations and art.
- Did you encounter problems? No

Pia Bückner

#### Stand – up

- What did you do so far?
  - Fixed some artwork
  - Created new icons
- What will you do today?
  - Continue fixing artwork
  - Make new coins
- Did you encounter problems?
- Do you need help?

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today?
  - The money
  - Fixed some art
- Did you encounter problems?

#### Day Closure (team)

- Make a list of crucial decisions/choices
- Show results + conclusions to justify these choices

#### 15 May

Maximilian Leschenar

##### Stand – up

- What did you do so far? Finished most content of the Design justification document
- What will you do today? Finish up the document and fill in the self and team evaluation
- Did you encounter problems?
- Do you need help?

##### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? Finished the document and the self and team assessment
- Did you encounter problems?

Valentin Dimitrov

##### Stand – up

- What did you do so far? Finished the website, fixed bugs as much as possible, and cleaning code
- What will you do today? Work on more bugs + final merges on github
- Did you encounter problems?
- Do you need help?

##### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? Team evaluation, final website touches, as well as last bug fixes on the game made with Ana.
- Did you encounter problems?

Ana-Maria Ilea

##### Stand – up

- What did you do so far? fixed bugs, implement assets, finished cleaning up the code
- What will you do today? fix any bugs or issues that are still in the game, fill in parts of the design justification document
- Did you encounter problems?
- Do you need help?
-



#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? Filled in parts of the design justification document, worked with Valentin to fix the remaining issues and finish the application
- Did you encounter problems?

#### Boris Gospodinov

##### Stand – up

- What did you do so far? Created 3 versions of the hub, one for when the player is mousing over each aquarium. Created many concepts for logo, as I am not satisfied with the current ones
- What will you do today? Finish the 3 variants of the hub. Create the logos. Beautify this document.
- Did you encounter problems?
- Do you need help?

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? Everything I had planned.
- Did you encounter problems? No

#### Yoan Darmonski

##### Stand – up

- What did you do so far? Fixed animations and some more artwork.
- What will you do today? Fix one last animation and fill in the documents
- Did you encounter problems?
- Do you need help?

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? Fixed the last animation and filled in the team and self evaluation
- Did you encounter problems?

#### Pia Bückner

##### Stand – up

- What did you do so far? Made the money for the game

- What will you do today? -Fix artwork if needed - Team and self-evaluation
- Did you encounter problems?
- Do you need help?

#### Expert questions

- Formulate your question
- Register the answer

#### Day Closure (individual)

- What did you do today? Filled in the team and self evaluation
- Did you encounter problems?

#### Day Closure (team)

- Make a list of crucial decisions/choices
- Show results + conclusions to justify these choices

## Individual reflection

Personal work & teamwork (what went well, what could be improved, what must be improved).

- Valentin Dimitrov
  - What I did well
    - Finished stuff on time for the most part
    - Relatively quick on the programming (as in getting things structure-wise)
    - Expressive and communicative regarding design choices, as well as website layout
  - What could be improved
    - Communication with other engineers due to misunderstanding in the beginning (concerns about GitHub merging and how to deal with it in the future)
    - Lack of motivation was apparent throughout the project (at points just being distracted, which also makes my teammates distracted as well)
    - Following the previous point, demeanour could be improved as well
    - Further improve my programming skills (code still doesn't use comments, has a lot of public variables which is not ideal)
  - How to improve
    - Use of more organized time schedule (use of Pomodoro timer etc.) in order to be more focused
    - Be more respectful towards others (which also goes with my first point)
    - Code-related practices

- Ana-Maria Ilea
  - What I did well
    - Implementing all the features that have been assigned to me in a short period of time
    - Communicating any issues or concerns I had with either the game or the teamwork
  - What could be improved
    - Communication and working with other engineers. We had issues regarding file merging and task division. We had a lot of conflicts and bugs due to merging.
    - Motivating myself to do stuff. There have been times where I hadn't been that productive
    - At times I seemed angry and my way of expressing myself wasn't the best.
  - How to improve
    - I need to communicate more with my teammates to make sure that I understand what is asked of me. I need to communicate frequently with other engineers I'm working on to make sure that we are working on the same code and we are on the same page.
    - I need to learn more about how GitHub works
    - I need to improve the way I communicate criticism or any issues I have.
- Maximilian Leschenar
  - What I did well
    - I was able to communicate my vision a lot better than in previous projects leading to less team discussions about big features
    - Estimating the abilities of my fellow team members which made planning around their abilities work quite well and allowed me to create a quite flexible time schedule to which we stuck
  - What could be improved
    - I had some issues when it comes to motivating myself this project and was also sometimes annoyed at the project. I blame this onto the current situation as working from home does not really give me enough encouragement to work at high rate of productivity
    - I was sometime a bit harsh with my team, which I mainly put on me not being that into the project due to the circumstances and communicating being a lot harder if it is just online
  - How to improve
    - Being more open to different opinions while not being too passive when it comes to ideas, I fundamentally disagree with
    - Just general

- Boris Gospodinov
  - What I did well:
    - Did a lot of visual research, which I like to think shows, especially in the reef tank.
    - Tried to stick to a more realistic art-style, and it turned out quite alright
    - Participated actively in most discussions and provided input.
    - Completed all my tasks and even did some things “for fun” in my spare time, which might not make the final cut.
    - Maintained a positive attitude and tried to assist others when possible
  - What could be improved
    - The speed at which I create assets for the game. I tend to be a perfectionist and I like to have far too many layers just to keep it “organized”. Both of those waste too much valuable time which results in staying late and consequently being late a couple of times.
  - How to improve
    - Instead of creating a single asset at a time, I should work on several simultaneous tasks. This will allow me to maintain a more consistent style across the assets (there are some slight variations right now) and probably prevent me from spending large quantities of time on details.
- Pia Bucker
  - What I did well
    - I finished my tasks in time.
    - I corrected my work immediately.
  - What could be improved
    - I’m a shy person. It’s hard for me to talk during a voice or video call. It’s already getting better, but I can still improve it.
    - My artwork is not on a high level. So, it’s good to improve it.
    - I didn’t give that much feedback.
  - How to improve
    - Give more feedback and say my opinion.
    - Be more active in the chat and during talks.
    - Work more on my art.
- Yoan Darmonski
  - What I did well
    - Thanks to previous projects, I was able to express my thoughts clearer this time and give my teammates a clearer view on my idea. By communicating more and actively listening to their ideas as well, I was able to bring out but the best for our game. This time I was not late for our daily meeting and I was able to

finish all my task very early, which led to me also helping the other artists.

- The art style that we chose was very successful and I am pretty happy with the results.
- мъчение на пениса и тестисите
- What could be improved
  - I should improve more my concentration, since I work from home and everything could distract me from doing my tasks.
  - I should give up some ideas, since sometimes I give a lot of ideas that are possible, but in the long-term.
- How to improve
  - I should get more isolated in an empty room and be more focused. Only communicating with my teammates and sharing ideas can make me concentrate.
  - I should listen even more to my designer and talk more about the ideas we all have so we can always get the best out of it.

## Teamwork reflection

- Valentin Dimitrov
  - What did the team do well
    - Team was effective for the most part and even managed to do things before schedule
    - Team was always on schedule (always gathering at the designated time)
    - Laid-back approach for the most part – there was barely any stress throughout these two weeks
  - What could the team improve
    - Be more vocal and specific about certain development choices (which lead to some of the things decided a bit late)
  - How the team could be improved
    - Sharing any ideas as soon as possible, in order to avoid delays and sudden choices during development
- Ana-Maria Ilea
  - What did the team do well
    - Settle on a concept and made a work plan quickly
    - Communicating about our individual progress in the second half of the project
    - Communicating and solving issues quickly
  - What could the team improve
    - Communication about future features that have not been discussed in the beginning
    - Communication what the engineers are working on and on what files they are working on to prevent merging conflicts.
    - At times it looked to me that the art was coming along a little slowly
  - How the team could be improved

- I think the main thing that can be improved is communication. We need to make sure that all team members understand the design choices and decisions
  - Sharing ideas and concepts as soon as possible so that everyone knows what they need to get done in the end
  - Communicating about the current code and code-files so that the engineers know what files are edited
- Maximilian Leschenar
  - What did the team do well
    - When problems arose they were quickly solved and at least somewhat civil
    - Punctuality was never an issue. Everyone always showed up on time and no one complained about the time we met at.
    - All work was done relatively quickly and on time
  - What could the team improve
    - Mostly motivational issues
    - Some communication issues
  - How the team could be improved
    - As always better communication will always help
- Boris Gospodinov
  - What did the team do well
    - Set achievable goals, kept a nice flow
  - What could the team improve
    - Not all task were completed, features were scrapped, assets were wasted.
  - How the team could be improved
    - Set and follow strict deadlines for everything even seemingly minor things.
- Pia Bucker
  - What did the team do well
    - The team talked about changes and decided together
    - The team worked together and stayed in contact during the project.
    - The team worked consequent on the project and finished their work in time.
  - What could the team improve
    - The team doesn't always know who is doing what.
    - During calls team members talk sometimes at the same time, then it's a bit confusing
  - How the team could be improved
    - The team could update their work more often.
    - The team can set rules for talking and discussions
- Yoan Darmonski
  - What did the team do well
    - The team was able to create and develop the idea fast and work efficiently. We were able to finish work right on schedule
    - There was very little stress and almost no hurry, that is why we were able to work well and manage to do our tasks.

- We communicated a lot, sometimes too much, but if it was related to work, we had a lot of discussions and everybody had a vote in everything.
- What could the team improve
  - We have to take turns when talking, because sometimes it was a mad house. It was very hard to follow someone if two more are talking.
  - More communication related to tasks
- How the team could be improved
  - We need to talk to each other and those with priority, that have something important to say, should go first.
  - Even though we had the stand-up meetings, it is still hard to follow what 5 more are doing especially during these times, so we should talk more if we have problems with our tasks.

The **GREEN CARD** goes to Yoan Darmonski due to him being always on time, showing great motivation when it comes to creating artwork, finishing his tasks early and contributing to the team in meaningful ways.