

DAT257 - Project scope

Project Team 18

Project Description

Project team 18 is planning to develop a 2D top-down educational fishing game with the purpose of spreading awareness about the environmental impacts of ocean pollution. In the game, the player will be fishing out trash from the ocean. Each time the player picks up trash from the ocean, information about the environmental impacts of the trash will be displayed to the player. Moreover, the player has the ability to recycle the trash and get points for it. The more harmful the trash is for the environment, the more points the player will get.

Testing

The game is to be made in the Unity game engine, furthermore each feature is to be developed separately from the whole game. Once a feature has been implemented and works correctly on its own. It should then be integrated into the main game and then be integration tested to make sure that the features works as intended with other systems and features. Each new feature should add functionality while not breaking other things. Similarly each game feature should be user tested to make sure that features are intuitive and easy to understand. The project should be continually tested in this manner.

Planning

At the beginning of a sprint, the team has a sprint planning meeting. This is where we choose what to pick up from the backlog and to begin to work on. During sprint planning at the beginning of the week, the product owner together with developers figure out new user stories and features that can be placed in the backlog. Together with the product owner, the scrum master goes through the backlog and makes changes to already existing user stories if they are unclear, too large or other changes are made.

The team will estimate the size of each user story by using the fibonacci estimation technique. Each user story will have a set of different tasks (Acceptance criteria), all these tasks need to be completed before the user story can be called done.

UN sustainability goals | [Goal 14](#)

Our project aims to align with Goal 14 in the stated UN Sustainability Goals, and that goal is “Conserve and sustainably use the oceans, seas and marine resources for sustainable development.”.

The project intends to spread awareness about ocean pollution, as stated earlier. One of the foremost issues expressed in goal 14 is the danger attributed to the pollution of the seas. We believe that to be able to lower the pollution levels, it is of utmost importance to spread awareness of the issues. With

awareness usually action is close to follow. Awareness can be seen as the first step to fixing an issue. It is hard to fix an issue if you don't know that it exists.

Specifically we have chosen two sub targets from goal 14 that we will focus our attention on.

The first of these targets are 14.1, which in short says that all marine pollution should be significantly reduced by 2025. Our project aligns well to this goal since the main issue we are planning to bring attention to is the different kinds of marine pollution. We think it will be important for the project to give information to people that is scientifically sound, and that gets people to see the severity of the situation. The idea is to shine some light on the situation to make people take action. Thereby we feel like we align with target 14.1.

The second sub target is 14.A, which is focused on expanding knowledge, science, and technology which contributes to healthier oceans. As mentioned before, we hope our project can help bring awareness to the current pollution of the oceans by mentioning facts based on scientific research. As more people become aware of how polluted the oceans actually are, we hope that it will inspire people to research further in what can be done to make the oceans healthier. Further, we hope it makes people take political action, such as demanding that more government funding be spent on research and technology that helps with making the oceans healthier.

Challenges

One of the most difficult parts of our project will be to get a MVP together in a reasonable time. Since we are making a game its MVP will still be quite large and require a lot of work. This could be a problem as the MVP is supposed to be functional and be done in a week's time. To still get it done in time we have made a strict plan where each group member is assigned a task they need to get done before the MVP's deadline, this will hopefully mean that our MVP will be functional in time.

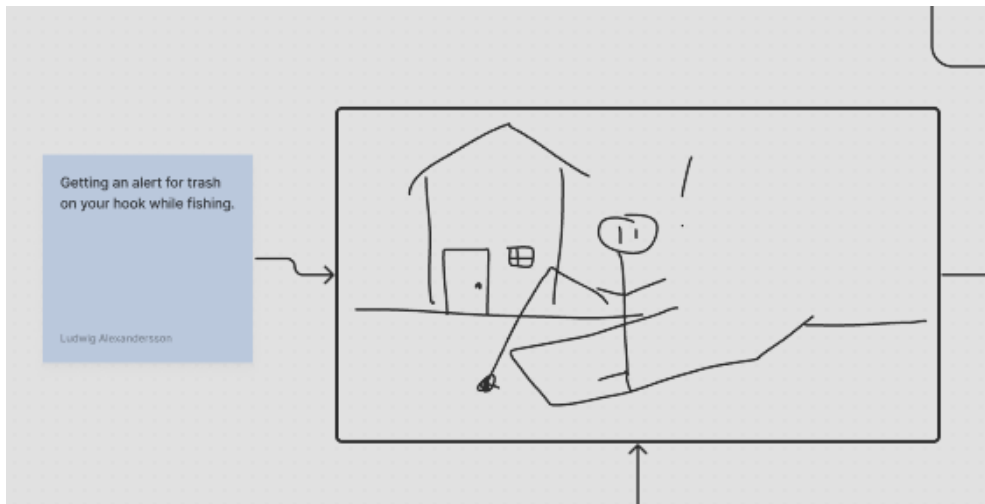
Another possible risk with our planned project is the fact that we are making it in Unity and not all of our group members have used Unity before. This could be a problem as some group members might not be able to get their task done in time as they don't know what they are doing. To counteract this problem a group member can ask the others for help when confused or look up the problem they have on the internet

Mockup

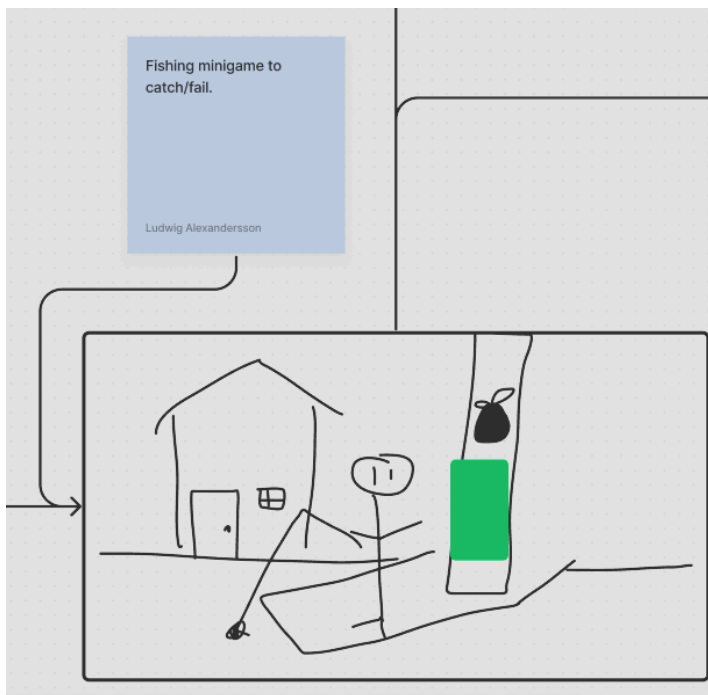
The main objective of the game is fishing for trash as shown in Picture 1. If you get trash on your "hook" you get an alert which you can click on. When clicked you get to play a minigame for the catch as shown in Picture 2, if you succeed in this minigame you catch the trash with an information box about the trash you caught, and if you fail, you do not get the catch as shown in Picture 3. The trash that is caught shows up in your inventory with a description as shown in Picture 4. You are then able to recycle the trash for in-game currency to upgrade your fishing gear or purchase new gear as shown in Picture 5 and Picture 6. You also should have the option of opening your map to see places you can or can't go to as well as see where there are trash hotspots, ranging from a sharp red to a pale red as shown in Picture 7.

For a closer look of the visual mockup click on this link: [Figma "prototype"](#).

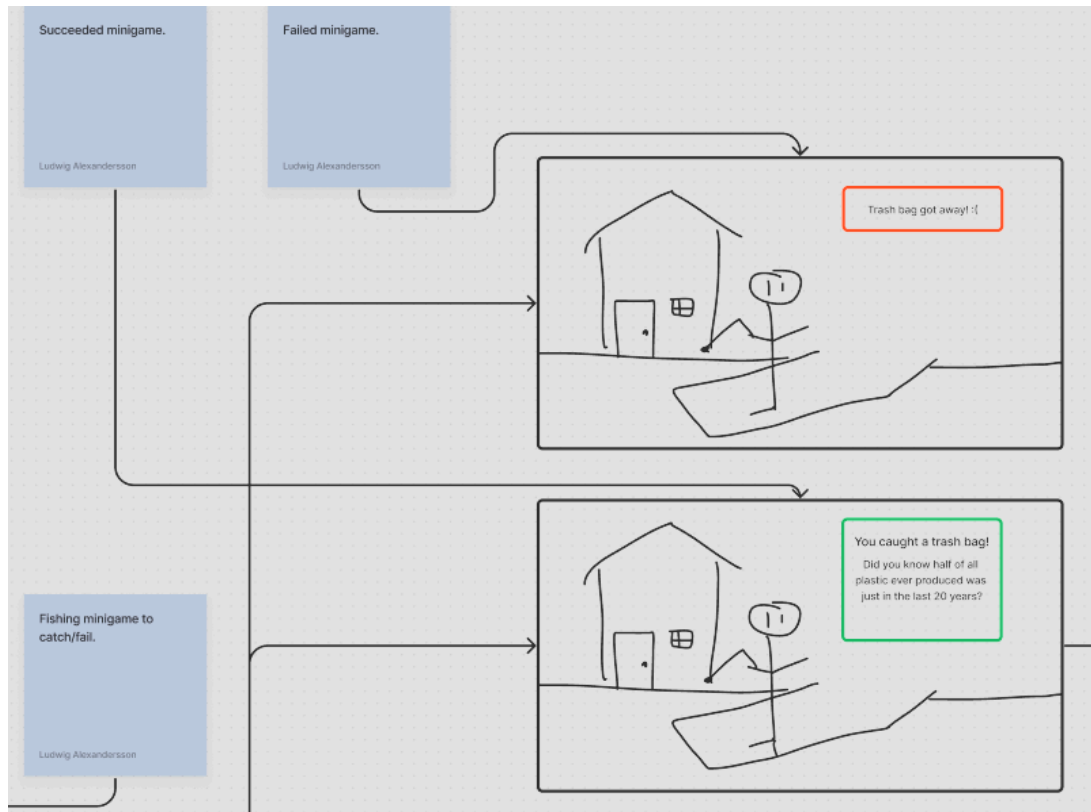
Picture 1



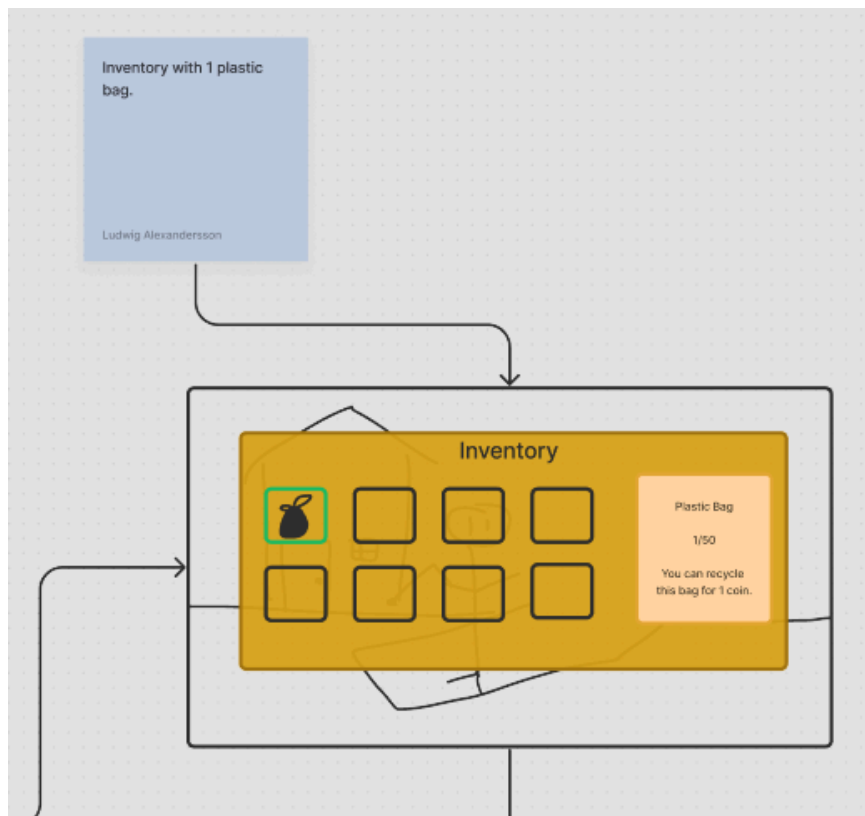
Picture 2



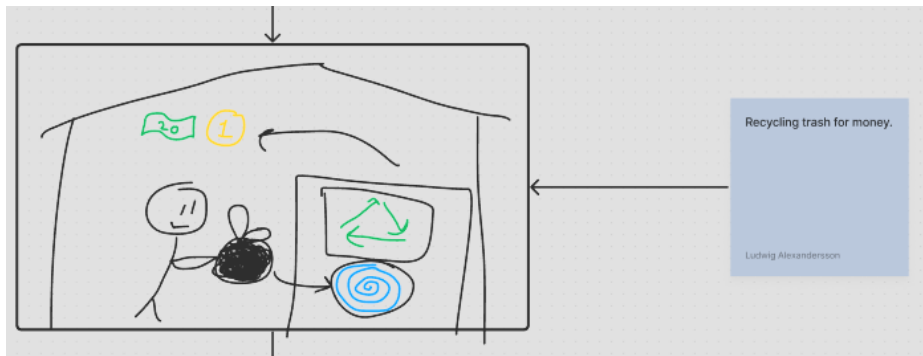
Picture 3



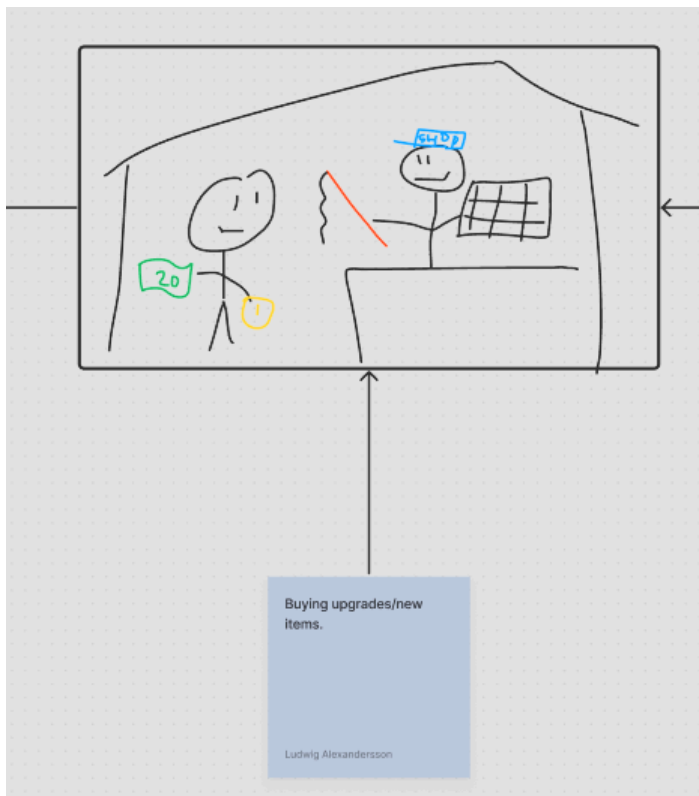
Picture 4



Picture 5



Picture 6



Picture 7

