Sprint Retrospective, Iteration #4

Context Project: Computer Games
Group: Team Kroket

User Story	Task	Member responsible for the task	Task Assigned to	Estimated Effort Per Task (in hours)	Actual Effort Per Task (in hours)	Done	Priority (A - E) (A is highest)	Notes
As a player, I want there to be multiple minigames, so the game has more variety and is more fun to play	Think of 1 or more new minigames for the android application.	Mayke	Alan, Irene, Mayke, Jochem, Harvey	6	6	Yes	D - For our first playable spike, we planned to have one minigame. We have 2 now, so this is less important.	See problem 1
	Implement the minigames we came up with.	Irene	Irene	10	6	No https://github.com/alanvanrossum/kroketapp/commit/effac9171b40774dd4af1c32b3ef63747d624272		
As a smartphone player, I want a minigame to start when the Oculus	The app should start a minigame only if it has received a start message from the	Harvey	Harvey, Irene	5	7	Yes https://github.com/alanvanrossu	A - This is essential for the actual playability of	We did add an additional object that can be interacted

player interacts with a certain object, so I can advance in the game	server, and send a message to the server when the game has finished					m/kroketapp/pull/1	the game and the playable spike.	with to start minigame B. However, this is now always possible, not only after minigame A was is completed. The Oculus Player sees “Minigame completed” when a minigame is completed.
As an Oculus player, I want a new object in the room to become interactable after a smartphone minigame has successfully been finished, so I can advance in the game	The game should send a start message to the server when the player interacts with a certain object, and be able to make a certain object interactable when receiving a certain message from the server.	Mayke	Mayke	5	5	Yes https://github.com/alanvanrossum/kroket/pull/7		
As a player, I want to be registered in the server and for the server to identify me, so I can communicate with the server and the game can start	The server needs to register smartphone users with their name and client type	Irene	Irene	3	3	Yes https://github.com/alanvanrossum/kroketapp/pull/1	A - this is also necessary to make the game playable.	
As a user, I want to play a game without encountering any bugs, so I can enjoy the game to the fullest	Write tests for the core of the pc game.	Alan	Alan	5	6	No	B - It was mandatory to write tests, and we have not done much in this regard.	See problem 3.
			Jochem	5	2			
	Write tests for the android app	Harvey	Harvey	10	11	yes https://github.com/ala		

			Irene	5	4	nvanrossum/kroketapp/pull/4	So it is pretty important that this task is completed	
As a developer, I want the code to be easy read and modify, so I can easily add or modify things	Refactor game main class, which is very long with a lot of methods.	Jochem	Mayke, Jochem	10	15	Yes https://github.com/alanvanrossum/kroket/commit/78644d20ea22ab5412d0bbc0ade81c646a82020b	C - Although not absolutely necessary, this will make things easier in the coming weeks, when the code gets more complicated	Also included reviewing the code with all
As a user, I want the game to work on every machine, not just the developer's..	Add the android app to the continuous integration in Travis.	Alan	Alan	2	2	Yes https://github.com/alanvanrossum/kroketapp/commit/24598ae6ff85c962abb194e47c713327a9f5f59f	A - This is essential to make sure the android app works on all machines.	
			Jochem	2	4			
			Irene	2	2			
As a player, I want to play a game that is pleasing to the eyes and is not just an	Update the scene to include boxes and nicer walls. Also update the design of	Mayke	Mayke, Alan, Jochem	10	5	yes	B - We do need boxes to interact with, but for the	Added an additional interactable painting.

empty box.	the room in general.						playable spike it does not necessarily have to look good.	
As a programmer, I need to know what the main architecture of our system looks like so I can understand the system better.	Update the Architecture Design document with any changes made to the system	Irene	Irene, Alan, Harvey	3	6	Yes	C - This is mandatory	
As an Oculus Rift player, I want the Oculus Rift to give extra value to the game, so that the device is not useless and gives a very vivid experience	Think of how we are going to incorporate special effects with the Oculus Rift and work this out	Jochem	Jochem, Irene	10	6	Semi	B - It is not necessary to play the game, but we feel it's needed to meet the feedback we received after our pitch.	We have thought of some special effects we want to incorporate. However the ideas are not fully worked out yet.
As an Oculus Rift player, I want to have an immersive experience	Fill the room with gas	Mayke	Alan, Mayke, Harvey	20	15	Yes https://github.com/alanvanrossum/kroket/commit/18074f5be95509d4ed7c52784ef6f327f6f89c98		

As an Oculus Rift player, I want to be unable to walk through walls.	Implement collision with the walls, floor and roof of the room.	Alan	Alan	5	5	Yes https://github.com/alanvanrossum/kroket/commit/d617a6e364d58371683e9166f52797da9c0413a4	A	Collision is fixed, additionally there now exists a toggle for the ability to 'fly' for the player.
As a mobile player, I want to be able to show that I have solved the minigame, so that the app can send useful information or interactions to the VR player.	Extend minigame A so that the mobile players can enter their answer and that the program checks whether this is correct.	Irene	Irene	2	2	Yes https://github.com/alanvanrossum/kroketapp/pull/5	A - It is important that the mobile players can influence the Oculus player, and therefore this has a high priority	
As a mobile player, I want to be able to see if there is no server available, so that I know why the game does not proceed.	Change the app so that when there is no server available, the screen shows a message instead of crashing.	Irene	Irene	2	4	No	B - It is not essential for the game to work, but it is every bad if the game is crashable.	After spending quite some time looking where the crash actually occurred, we still could not find the exact source or fix it.

As an Oculus Rift player, I want to be able to trigger minigames by interacting with objects in the environment.	Create an event handler to trigger positional events when a gamepad button is used	Jochem	Jochem	2	2	yes	A - For a playable spike it is necessary to interact with the environment.	
As a developer, I want my dependencies to be available in CI, even when the original webserver goes down.	Create a mirror of the original repository	Jochem	Jochem	1	1	yes	D	
As a developer, I want the code I'm working on to be clean and documented, so the code is easier to read and follow.	Add comments and javadoc.	Jochem	Jochem	1	1	yes	B	

Main problems encountered

Problem 1

Description:
Jochem came up with an idea for a minigame. However, when Irene tried to implement this game, it turned out to be harder than it seemed. We wanted to make a minigame where the server would send a randomized color sequence to the android client. Then this color sequence should be displayed in the minigame. A problem occurred by getting the color sequence from the android client to the minigame activity.

Reaction:
Irene tried several approaches to solve this, but we still do not have this working, so the problem is not yet resolved. We now have to decide whether we really want the randomized element and find a way to solve this issue, or that we just hardcode a color sequence, which will remove the problem.

Problem 2

Description:
Our Android app had to be brought under continuous integration. Because Travis CI's configuration does not support building for multiple languages/architectures in one repository, we had to move the App to its own seperate repository.

Reaction:
Alan moved the Android App to its own seperate repository. Jochem spent several hours trying to get the build working. The reason this took quite a while was that the builds took long before eventually failing and displaying the error.

Problem 3

Description:
The android tests worked locally however the tests all failed when Travis CI tried to run them in it's emulator resulting in failed builds.

Reaction:
Harvey attempted multiple solutions. The general problem seemed that travis CI's emulator's screen had to be woken up first which the local emulator didn't have to hence why one failed while the other succeeded. the first attempt was to use Robotium's wake up screen method however trying to use Espresso and Robotium at the same time wasn't a great success. The solution was to add a build matrix to the environment which fixed the issue.

Problem 4

Description:
The jMonkeyEngine webservers were down and so was their maven repository. Please review problem 2 in the retrospective for the previous iteration.

Reaction:
Jochem copied most of the Maven artifacts into Sonatype Nexus on Devhub (at Delft University) and added a reference to this repository to the pom.xml file.

Problem 5

Description:
We created gas in the environment. However, the gas was not visible in the Oculus unless we registered it immediately (during the init phase).

Reaction:
Jochem tried to resolve the problems in several different ways. We register the gas immediately but plan to let its density increase over time.

Problem 6

Description:
We have no idea how to generate code coverage reports for Android tests.

Reaction:
This still requires work.

Problem 7

Description:
The Travis CI on the KroketApp repository is acting very strange in our eyes. Sometimes the build fails (it then gives the error that all the tests are failing). When someone then commits a useless change (e.g. add an enter) then the build passes again.

Reaction:
We are still puzzled as to how this is possible. It probably has to do with the Android testing, but we have not been able to figure it out so far. Hopefully we will be able to fix this in the next sprint.

Adjustments for the next sprint

We will be taking our scrum meetings more seriously, Alan will start every group session within 15 minutes after the decided meeting time with a scrum meeting, giving everyone in the team a turn to tell which problems they encountered, whether these be technical or personal, and what their plans are for today. After this, we will decide what we want to have done at the end of the day, and who performs which task.
In order to make it easier for everyone to keep overview and contribute to the making of the sprint backlog and sprint planning, we decided to adopt Jochem’s idea of the spreadsheat of tasks. We hope that this will make the process easier for everyone in the coming sprints.