Sprint Retrospective, Iteration # 5

User Story	Task	Member responsible for the task	Task Assigned To	Estimated Effort per Task (in hours)	Actual Effort per Task (in hours)	Done (yes / no)	Priority (A—E) (A is highest)	Note	Link to commit / pull request	Reviewer(s)
As a gamer, I want the game to contain obstacles, so that I get challenged.	Implement collision detection with obstacles, as well as the reaction	Marcel	Marcel + Nils	10 (total)	Marcel: 14.0	yes	A	Basic obstacles work. The platform slows down when you bump into one.		
	Implement dynamic obstacle generation	Marcel	Marcel	4.0	Marcel: 2.0	partially	B	Only a basic routine is implemented. However, I made it easy to expand upon it		
	Create obstacle models	Nils	Nils	6.0	Nils: 4.0	yes	A	Models are added, we might want some other/more when it is more clear what sort of obstacles we want	https://github.com/MrCrime/ContextMigi-1/pull/51	Damian Nils
	Add damage metric for obstacles	Marcel	Marcel	3.0	-	no	B			
	Making the commander die when too much damage is taken and allow the game to restart	Marcel	Marcel	5.0	-	no	B			
As a user I want multiple device integration, so that I can play the game with more people	Assigning each connected Android device a different position (corner) under the platform.	Luka	Luka	4.0	Luka: 4.0	Partially	A	Still needs testing	https://github.com/MrCrime/ContextMigi-1/commit/a5cdfa4ad94f0a0c155df0fec7a3a3db3a1e6bac (and any commits before that one in the branch)	-
	Moving the platform into a certain direction depending on all four Android devices (taking the average seems to be the logical choice).	Luka	Luka	3.0	Luka: 1.5	no	A	The base code is there.	-	-
	Get the platform to tilt if the four accelerometers	Luka	Luka	5.0	-	no	C	-	-	-

	aren't very well synchronized.								
As the commander I want the camera to move depending on actions from the carriers, so that I can feel more immersed in the game.	Get the camera to tilt when the platform moves in a certain direction.	Marcel	Marcel	2.0	0	no	B		
	Wobbling motion while running	Marcel	Marcel	2.0	0	no	B		
	Perceive a visual effect when the carriers take damage	Marcel	Marcel	3.0	0	no	B		
	Ragdoll physics when dying	Marcel	Marcel	4.0	0	no	B		
As a carrier, I want to have an UI that I can use to connect to a server, and display information to me.	Create the first screens of the app: 'connecting', 'loading', and 'your position is this'.	Remi	Remi	6.0	Remi: 5.0	yes	A	I first had to deal with some issues and I had to figure out how to develop UIs for android, so I expected it'd take about 5-6 hours.	https://github.com/MrCrime/Context Migi-1/pull/57	
	Create the in-game ui for the app in which you can see which position you have and they buttons you can press.	Remi	Remi	10.0	Remi: 11.0	yes	A			
As a player of this game, I want music and sound effects to listen to.	Make sure music plays and loops	Remi	Remi	2.0	0.0	no	C	Decided to do sfx first, cause those were easier to implement because of nifty		-
	Have sfx play when buttons are pressed.	Remi	Remi	2.0	Remi: 2.0	no	E	We're not using nifty anymore, so I'll have to do this over.		-
As a user I want the carriers to be interactive and modeled so I can feel be immersed	Implement carrier models	Damian	Damian	1.0	-	no	A	The carrier class has been implemented, the carriers themselves aren't, some changes will and are being made to them.		

	Implement carrier functionality: health, recovery, position	Damian	Damian	5.0	Damian: 2.0	no	A			
As a user I want all models to be designed correctly so the game functions as it should	Remodel existing modules to allow enemy spawning	Nils	Nils + Damian	5.0 pp	Nils: 10.0	yes	B		https://github.com/MrCrime/Context Migi-1/pull/54	
	Resize current carrier/modules/pl atform sizes	Nils	Nils + Damian	1.0 pp	Damian: 1.0	yes	B	Damian made the asset folder "work" again	https://github.com/MrCrime/Context Migi-1/pull/54	
	Add extra world modules	Nils	Nils + Damian	7.0 pp	-	no	E	We remade the earlier models into five different models.		
As a user I want there to be enemies in the game to make the game more challenging and fun	Create enemy model	Damian	Damian	3.0	Damian: 2.0	yes	B	A model was created, is not in the game yet	The enemy feature will be refactored, together with obstacles. Therefore the enemies branch isn't merged into the master as of yet	
	Implement enemy class	Damian	Damian	3.0	Damian: 2.0	yes	B			
	Make the enemy spawn randomly	Damian	Damian	3.0	Damian: 7.0	yes	B			
	Make the enemy go randomly to 1 of the three designated spots of a player and attack the player	Damian	Damian	8.0	Damian: 5.0	no	C	The carriers don't have assigned spots where enemies can spawn yet, the enemies do however move to the platform already		
As a developer I want the code to be clean and future proof so it is easier to work on in the long run	Refactor Environment class (which is near to the point of becoming a god class).	Damian	Damian + Nils	2.0 (total)	Luka: 15.0 Damian: 6.0 Marcel: 12.0	Yes	A	This required chaning the entire class structure of the ContextDesktop module. As this had a lot of influence in other task, many people from the team worked on this task.	https://github.com/MrCrime/Context Migi-1/pull/50 and https://github.com/MrCrime/Context Migi-1/pull/53	Luka Marcel Nils Damian
	Refactor Main class (which is near to the point of becoming a god class)	Damian	Damian + Nils	2.0 (total)	Nils: 8.0	yes	A	Refactored the main by adding a VRConfigurer class, which hanles the VR configuration, and an InputHandler class, which handles the keyinputs given.	https://github.com/MrCrime/Context Migi-1/pull/55	Marcel Luka Damian
	Refactor the Server and ClientWrapper so that they have less useless if statements.	Luka	Luka	1.5	Luka: 5.0	Partially	A	ServerWrapper has been refactored, but because it was accepted near the end of the sprint, there was no time to refactor ClientWrapper as well.	https://github.com/MrCrime/Context Migi-1/pull/49	Nils Chiel (WRONG GROUP) Damian
	Make the server and client start and quit at appriopriate	Luka	Luka	1.5	-	no	A	-	-	-

User Story	Task									
	moments, instead of just starting them at the start of the app and never closing them cleanly.									
	Clean up the mess created previous sprint that fixed the Travis build (unnecessary libraries and weird poms)	Luka	Luka	1.5	Luka: 2.0	yes	A	-	https://github.com/MrCrime/ContextMigi-1/pull/48	Marcel Nils
	Fix test suites (about networking) that sometimes have a chance of failing the Travis Build.	Luka	Luka	1.5	Luka: 0.5	Yes	A	-	https://github.com/MrCrime/ContextMigi-1/pull/46	Marcel
As a developer, I want my code to be well tested, so that the risk of having bugs in the code is lowered.	Create tests where needed	Nils	Nils + Remi	8.0 p.p.	Nils: 8.0		A	Tests for the refactored environment and the refactored main menu	TODO	TODO
As a *carrier*, I want my character to duck when I quickly push my Android downwards, so that me and my fellow carriers can use that mechanic to dodge more obstacles, this also allowes for a bigger variaty in obstacles.	Detect when an Android device has been pushed downwards.	Luka	Luka	2.0	-	no	D	-	-	-
	Make the entire platform (including the commander standing on top of it), go down for a certain time period when a downwards push has been detected.	Luka	Luka	3.0	-	no	D	-	-	-
	Make only part of the platform go downwards depending on which carrier pushed the platform downwards.	Luka	Luka	4.0	-	no	D	-	-	-

	Create obstacle models for the ducking feature.	Nils	Luka + Nils	4.0	-	no	D	-	-	-
As a newcomer to this development team, I want a simple class diagram (UML) of this project in the EAD, so I can quickly get an overview of the structure.	Create some class diagrams for parts of the project (so not one big class diagram of the entire project)	Luka	Luka	3.0		no	D			
The following tasks are ones not specified in the Backlog, but done because they were required before some other task.	Fix assetNotFound bug	Marcel	Marcel		Marcel: 1.0	yes				

Context Project: Computer games
Group: MIGI1

Total hours:
Nils ~30 (excluding reviewing, which took ~1 hour total)
Luka ~ 28 (excluding reviewing, which took ~3 hours total)
Marcel ~ 29 (excluding reviewing, which took ~1.5 hours)
Damian ~ 25
Remi ~ 18

Note: Remi has put less hours into the project, due to his dad's 50th birthday, him being sick for three days, and the computer graphics midterm. This will be compensated in the following weeks.

Main problems encountered:

Problem 1:

The estimated effort refactoring the Environment class is two hours, however, the time spent was much more. This is because we've decided to change the entire class structure of the project. This task nearly tripled the number of classes we had. Because so many other tasks in the backlog depended on the refactored version of the project, nearly everybody worked on it. Because of so much time being spent on this task, other tasks could not be finished in time.
Reaction: We agreed that the new refactored class structure is extremely important as it created a basis for nearly every other feature to come. So instead of skipping this task, we moved others to the next sprint.

Problem 2:

Unit Testing! Many tasks (especially the refactor ones) didn't have the correct estimations. This is because this sprint we actually started to intensively write unit test, but didn't take into account how long those would take. Especially because many unit tests require intensive use of the PowerMockito framework, which many of the team members are new to.

Reaction: For the backlog of next sprint we will take into account the time it takes to write tests.

Adjustments for next sprint:

-   Take time writing tests