Sprint 1 retrospective

User Story	Task	Task Assigned To	Estimated Effort per Task (in hours)	Actual Effort per Task (in hours)	Done (yes/no)	Notes
#1	Set up a website	Malina, Boris	4	4	yes	
#2	Set up a CAPTCHA	Georgi	8	9	yes	Still need to save response data
#3	Update the script that displays maps	Malina	8	8	yes	
#4	Set up a server	Andrei, Paula	3	4.5	yes	
#5	Set up a GitLab pipeline	Andrei	2	1	yes	
#6	Retrieve tiles from tile server	Everyone	5	17	yes	Took a long time since there are a lot of tiles even in one map
#7	Create a database	Paula	2	2	yes	
	Setup temporary hosting for the database	Georgi	1	2	yes	

#8	Connect server and database	Paula	2	2	yes	
#9	Check the colours of tiles	Andrei	2	1	yes	Only checks colours, does not assign labels
#10	Replace server with an API	Paula	6	8	yes	Spent more time debugging than expected
#11	Store tile information in database	Andrei, Malina, Paula	8	1	no	The script for saving tiles should be easy to implement, but it will take a long time to save all the information
#12	Create training set with churches & train algorithm on it	Boris	6	5	yes	I've chosen tensorflow for this task
#13	Find an effective solution for getting the tiles	Boris	3	3	not yet	Still no solution for this

User Stories

1. As a user, I want to be able to access the website
2. As a user, I want to be able to fill in a CAPTCHA when I access the website
3. As a user, I want to be able to see the maps load quickly
4. As a developer, I want to be able to have a server that constantly runs and manages requests to the website
5. As a developer, I want to be able to have GitLab run a pipeline consisting of static analysis and testing on each commit
6. As a developer, I want to be able to retrieve tiles from the tile server in order to use the for machine learning
7. As a developer, I want to be able to use a database for storing information
8. As a developer, I want to be able to access the database directly from the server
9. As a developer, I want to be able to check the dominant colour of a tile to see if I can give it a label straight away (e.g 90% blue means it is clearly water) or if I need to remember that this tile needs to be checked by a human via a CAPTCHA
10. As a developer, I want to be able to have a more efficient server that runs on a framework such as Django
11. As a developer, I want to be able to store information about the tiles on the database
12. As a developer, I want to be able to have data available in order to train a deep learning algorithm
13. As a developer, I want to be able to efficiently retrieve tiles from the tile server

Main Problems Encountered

Problem 1: Confusion about requirement priorities

Description: It was not clear whether or not we were going to identify objects on maps and then classify tiles or classify tiles and then identify objects

Reaction: We started implementing things that could apply to both, so we were constrained to doing basic requirements that could apply to either of them

Problem 2: Retrieving tiles from the tile server was very time consuming

Description: Maps have a lot of tiles (between 600,000 and 1,000,000) and not all of them are adequate. Border regions are represented as black/transparent tiles and are not usable

Reaction: Initially, we downloaded only a subset of the tiles from the 2016 map to use them as data set for machine learning

Adjustments for the next Sprint Plan

- Test everything that is not tested at all or not tested enough
- Find efficient solutions for working with tiles (retrieving and storing)