Phases 2 and 3 self-reflection

# Florin Pană

After the numerous challenges and hardships of phase 1, the team members of group 9 had to face a new, bigger challenge: to work on a completely new, unknown topic while having learned from the previous mistakes and improving the work processes. The team’s task was to create an application that receives packets from a LoRa device, filters them, decrypts them, stores them on a log file, and then displays them on a table in the user interface. In order to achieve this goal, the team has worked using a Raspberry pi and for the user interface part, alongside the packet decryption, filtering and storing, they have used Node-red. All the topics mentioned above were completely new to us, who had no experience working with them. We have taken the self-reflections from phase 1 very seriously and acted accordingly. There were still some issues within the group, but far between, more rare, and none of them have stopped the progress of the team. There is a clear improvement from the workflow of phase 1. Communication now is still not perfect, but it is significantly better than before. The group had more and longer meetings, task division has been handled better, with the team members choosing to work in pairs to achieve their goals faster and more efficiently. That way, there was a pair of students working on both ends of the communication. Stefan set up the hardware for the initial steps, with Aleksandar helping out afterwards. Me and Aleksandar worked together for the documentation and setting up the deliverables, while me and Robbe worked on setting up the user interface, improving it, and adding new functions along the way. We have also worked together for the key generation menu and functions. Robbe and Stefan worked together to connect the Node-red application and the LoRa gateway for the final steps. All in all, every member in the team has worked with 2 other members. As a conclusion, every process throughout these 2 phases has been significantly improved, we have learned from our mistakes and delivered a working proof of concept application. I am proud of what my teammates and i have achieved with this project.

# Aleksandar Dobrev

To conclude these phases, l would say that we definitely managed to pick ourselves up from the previous phase and we fully completed everything needed for the project. l was very interested in the topic that we chose, but also it was quite hard, it required a lot of research and testing in order to have the complete version of our application and gateway. l could say that during this project l improved in a lot of aspects, but there were also bad aspects, which l needed to improve. During these phases l managed to work in a team and communicate with them. This was crucial due to the fact that the project was not individual and not everything depended on me. So, l had to master communicating and organizing with my other three teammates. We overcame a lot of difficulties through these phases and we did it as a team, which in my personal opinion was the most crucial thing. Also, l could say that our workload was on a decent level, which allowed us to have good balance between us. This helped in order to finish everything, which was connected with the project and have time for all the tasks that we had to do. In my opinion, we did a great job overall for these phases and l was pleased with our performance through these phases. l believe, we managed to grew as a team, as an individuals and the whole experience l gained will be very important in my future.

# Stefan Teeuwen

During this project we had some hardships. However, we learned from our previous project and improved our ways of communication to solve them. Our task division was well balanced during this project. We divided our project into two parts: one part for sending (hardware) and one part for receiving (software). This way, we could all use our course specializations to positively influence the outcome of this project. Sometimes a team member switched sides to help out on each other’s part of the project. I think we grew a lot as a team in comparison to our previous project. We were on time with all of our deadlines, which was a result of good planning and hard work from all of our team members. We all gave more than 100% before the final deadline to bring the best possible result. Team members also actively reported on their current tasks and asked for help when necessary. After each phase we revaluated the current release of our project, asked for feedback and changed task division when necessary. In the end I would say that I’m very happy with the project as a whole. We improved a lot and brought the best result possible.

# Robbe Vrijenhoek

During last semester, we started off with some trouble, but we also proven ourselves in the end. We eventually managed to deliver a complete project even though we as a project group had to withstand a couple of harsh moments. From failing our first project in Phase 1 and getting demotivated, to still finishing the project for Phase 2, I and we as a group have learned a lot during last part of the semester. In the way of working together we improved a lot although we still had some issues, due to less motivation, and more stress due to the increased chance of failing the semester. I also learned a lot by having to use a new platform called node-red, we decided to use node-red since it would ensure efficient code for low-end devices, and since we as normal software developers are not used to write optimized code we thought it was safer to use node-red than to build an application ourselves to run on a low-end device. This however was to me a mistake, I dislike the way node-red works since it takes away most of the work for a software developer. Node-red does a lot of things for you, allowing the developer to perform actions by dragging and dropping and connecting a node. Instead of writing the code yourself. This caused me and Florin (the software members of the group) a lot of trouble by not understanding how node-red exactly worked, and knowing what systems node-red uses nothing proofed to me node-red’s code would be more efficient than code I would write. In the end we did manage to finish this project and pass all the obstacles along the way. I think we delivered quite a proficient project and we all learned an important lesson during this semester.