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SEP2Y Group 2 Final Project
PROCESS REPORT

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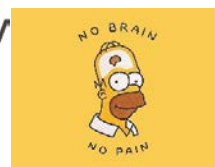
Dan-Sebastian Ceapa 315162

Matas Armonaitis, 315263

Chiril Luncasu 315171

Supervisors:

Steffen Andersen (SVA), Henrik Kronborg Pedersen(HEKP)

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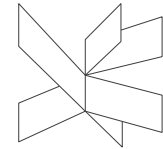
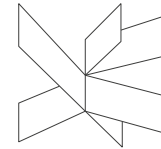**[Number of characters]**

Software Technology Engineering

2nd Semester

24.05.2022

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1   Introduction

Group 2 from class Y, composed of Chiril Luncasu, Dragos Daniel Bonaparte, Dan-Sebastian Ceapa and Matas Armonaitis worked together throughout their 4 sprints in the second semester, spring 2022, for the course SEP2.

A recollection of their meetings throughout the Sprints can be assessed in the following table:

27 APRIL – 24 MAY

27/04-29/04	Met from 09:00 - 12:00
30/04-01/05	WEEKEND
02/05-06/05	Met from 09:00 - 12:00
07/05-08/05	WEEKEND
09/05-13/05	Met from 09:00-12:00
14/05-15/05	WEEKEND
16/05-20/05	Met from 09:00-12:00
21/05-22/05	WEEKEND
23/05-24/05	Met from 09:00-12:00

The Sprint Backlog for this group can be found in more detail in APPENDIX 1C Sprint Backlog. We had multiple supervisor meetings with Henrik and Steffen, and email conversations where we got help with our questions about our project, our motivation and working as a united team. The meetings we had were short 20-30 minutes meetings, that happened within the time frame 9:00 – 12:00.

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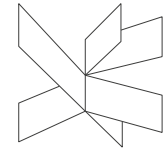
2 Group Description

For our four-person group, we have some diversity regarding cultural background, experience, and people's characters in general. We have 3 students from Romania: Dragos, Chiril, and Dan, and 1 student from Lithuania: Matas. All of us have different views on the world of programming due to our prior experiences with university exercises and experience before it. When it comes to roles in the group, SCRUM for example, we tried to choose the person that fit the best!

DRAGOS DANIEL BONAPARTE

Nationality: Romanian

SCRUM Roles: Developer

Fun Fact: Can repair/make anything work
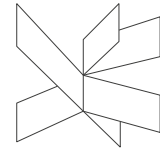

MATAS ARMONAITIS

Nationality: Lithuanian

SCRUM Roles: SCRUM master, Developer

Fun Fact: Best bassist around

Chiril Luncasu

Nationality: Romanian

SCRUM Roles: Developer

Fun Fact: Can make you smile at any time

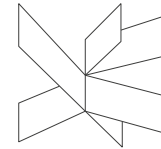## Dan – Sebastian Ceapa

Nationality: Romanian

SCRUM Roles: Product Owner, Developer

Fun Fact: Has a lot of luck

Personal Profiles

Our humble group members are very different when it comes to their character type, but when deciding our SCRUM roles, we made sure that we consider character traits and characterization of the person about themselves. We chose Matas as SCRUM master because of his friendliness, Drive to bond and nourish relationships with people, and the capability to make harsh decisions when needed, which was an easy task. But when we were looking for a Product owner we had problems, whether we would like a product owner that is very strict, or we would like a product owner which is very value base or if we wanted a product owner which had a very big drive for socialization. In the end we decided that Dan would be the best fit because of his rational thinking when it comes to his beliefs and points of view, and his drive to make a fun project which will give us an opportunity to learn a lot from.

All the members had the responsibility of being team members as well, so nobody got left out. A little lower you can see the personal profiles that can back up our claims about each of developer's personalities and traits that helped us decide their roles in the group. However, sometimes we didn't follow the personal profiles, thinking our judgement will be much more efficient. For example, at the start or group work we had issues with authority in our group, we didn't know how we should go about doing tasks. But we overcame the problem by showing some boldness and some group members tried to seek status which solved our problems. But, by just looking at our personal profiles that indicate a lack of motivation for prestige, influence, a fear of appearing weak and losing influence we would start working as a better team from the start.
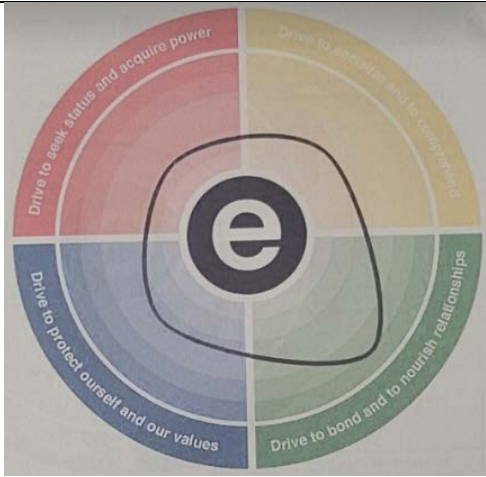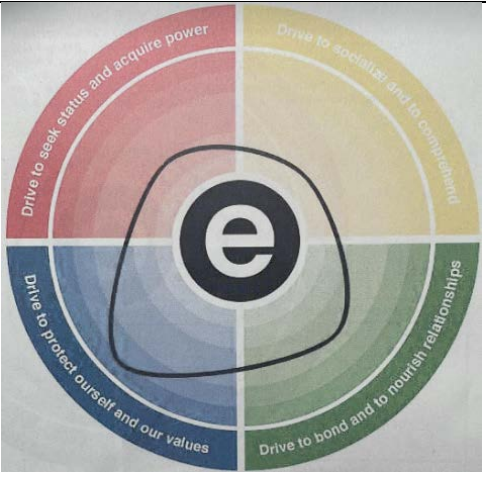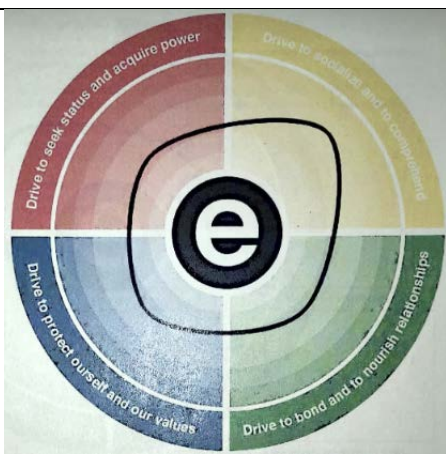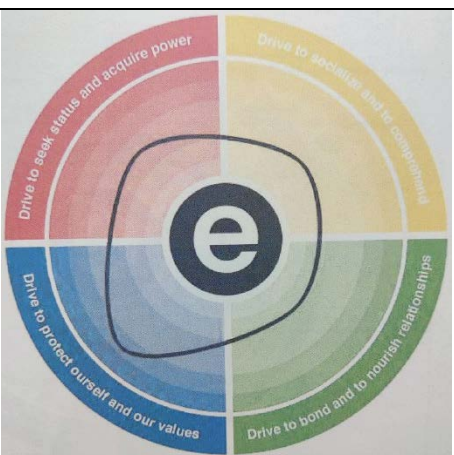
Our team complements each other perfectly because we have team members that mostly focus on values, teamwork, quality, and harmony, while having members that could fill in for the missing qualities, because everyone is so diverse. Not only we had people who focus on results, goals and mostly initiate all the good ideas, but also, we had people that are motivated by variation, and focus on ideas and are just the most creative and Inspiring members of the team.

While making we didn't set any boundaries for laziness or time frames, which made our group suffer. After looking at our profiles we made sure that we put clear boundaries like penalties for not coming to meetings because in our personal profiles we didn't have a lot of people that show influence.

In a nutshell, we really think we were spot on when we chose our SCRUM roles, and we were diverse enough to show qualities that would otherwise be missing from our group. We focused on a friendly atmosphere that tried to get everyone involved and feel
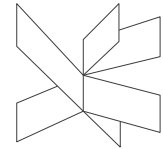
appreciated, while keeping some formal rules to make sure we have boundaries and discipline.

Matas Armonaitis	Dan-Sebastian Ceapa
Dragos Daniel Bonaparte	**Chiril Luncasu**
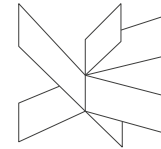
Cultural Background

As a group we feel like our cultural backgrounds are very similar, not only because we have 3 members that have the same nationality, but because of the history our countries share, and the way our communities back home shaped us.

First, because our cultural backgrounds are very similar, we didn't really have a lot of challenges heading into the project period because we already understood how everyone communicates, understands, makes decisions and we had enough trust to get job done without any major conflicts. Another strength would be the fact that some of our group members knew a lot about the cultures of both countries, so we had people that made sure everyone was on the same page, acting as human translators if they saw that the situation wasn't clear, or someone didn't understand what they had to do properly.

On the other hand, there are some visible minuses that we could point out as well. Because we come from the same background, we had no room for new experiences that could make our work more productive. For example, if someone came from a community that had less strict rules, or rather harsher rules, they would have a "fresh look" on the way we were working. That would greatly help us with working at our jobs in the future or next semesters, but sadly we didn't get the wanted outcome.
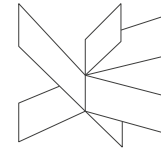
The most relevant dimensions in our group are surely Disagreement, Communication and Leading. Our cultures are very direct when it comes to communication. When we disagree with something we will be mostly confrontational, which makes it perfect for things we disagree with. We would list out what we don't like about it in a very open manner and then we would continue our task without having to avoid or try to mask our preferences. If we mention communication, we are mostly low-content, but when someone wants us to elaborate on a problem we can switch up to high-context communication easily. This helps a lot, because we are very direct when talking about the task, we are willing to do, about the plans we have or group activities in general. Lastly but not least, leading is a big part of the communication in our group, we are always keeping it very egalitarian, mainly through votes, and letting democracy decide what we are going to do. In our eyes every group member has their opinion, and everyone should speak up when they don't agree with a decision, but when it comes to implementing it, we try to make everyone happy by having a vote where the majority rules. Everyone is happy with it; thus, it works nicely.

A lot of times when we tried to solve a problem, we tried to be as direct as possible, confrontational at times with decision we didn't like and keeping it equal with a simple vote system that everybody agrees with.
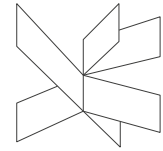
We were already on the same page when it came to communicating, but the Culture Map let us achieve a better understanding of the fact that of the people have a different cultural background which doesn't look like our but ultimately can be understood with a little bit of effort.

3   Project Initiation

Our group was formed out of the comradery shown towards each other. Dragos and Matas are good friends that had a very good experience with SEP1 but their group members left them to form another group with other people which they didn't take to heart, but they needed 2 other members. Because Chiril and Dan had a very bad experience with SEP1 they were looking for a new team. Dragos knew Chiril was looking for a team, so he proposed that the 4 of them unite forces for a new and hopefully better team, forming NBNP.
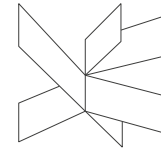
NBNP is the name of the group. It stands for "No Brain No Pain" – which is a joke that ran in the group was nominated as the name. Everyone was so active and happy to work with each over that a lot of jokes, happy moments and fun times occurred. It should be noted that we used a lot of our brain power for this project, so the name should be taken as a joke!

Our customer requested an app that would play songs in playlists that you could search up in the app and show the lyrics for the songs. The customer also required that he could create playlists and have users that had those playlists. Some features as the changing of the volume of the song in the app were reconsidered by the product owner, so we didn't have to implement them into the final version.

If we talk about "planning" for the project, we were very serious about research, and we did a lot of it even before we started doing sprints. All our team was determined to find a way to play songs and pair it up with transferring data from the database, so we were very fond of the project at the start. We started using UP at it's fullest by trying to go through Inception while modeling the best app we could while fulfilling the requirements, not forgetting about the SCRUM methodology that was given to us. We were very fond of the product owner working together with the SCRUM master to make sure we get the
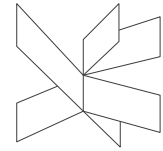
best result as soon as possible. Our burndown chart shows that we were slow in the beginning, but we were making sure that we are covering all bases at that time. Sadly, we were very demoralized because of the project state we were in, and we didn't feel like we were progressing, but after having a talk with our supervisor some group members tried inspiring the others and we started working passionately again while trying to maintain good high-content communication to end Inception very fast and easy.

4 Project Description

The group is very proud to say that our Project Description was a smooth start. We learned a lot from first semester about teamwork and how we should go about conflicts and how we should approach starting a big project. We were very happy to see that some fundamentals like Report Writing didn't change so we had an upper hand on ourselves in the first semester where we were scared because we didn't know anything.

We were set on our way to write a very good Project Description, and we finished it quite early considering that we didn't expect to finish this early. But then we had a mentor meeting where we were told that it was good, but it could have some improvements. Happily, we worked together with our supervisor to get the Project Description to a good state. Ultimately, we tried to make the product owners and our goals as clear as possible, so we had a set path, and we had a set goal in our minds. However, down the road we understood that having clear goals sometimes is very hard to work with, because we had no room for improvement on some techniques we used before, considering we weren't too fond of using the SCRUM roles, which could lead us a dark path if we didn't have a talk with our supervisor where we understood that we should be more focused on having the product owner tell us what he wants and having the SCRUM master negotiate with them.
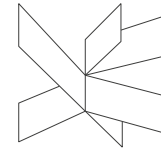
5 Project Execution

Project Execution phase was the hardest phase for the whole group. It should be mentioned that we already had burned out once due to the absence of morale in the initiation phase so we were surely pouring our souls into this to end it as soon as possible with the best quality we can provide while slowly getting into the Elaboration phase.

Elaboration was quite nice because we figured out a lot of the modelling by doing the project Description pretty fast as it was mentioned before, so we started working on the Analysis and Design while still keeping un with Implementation which was pretty hard because we had to design something and immediately implement it just to understand that we missed something and we had to go back and work on it. Another amazing thing that we like about Scrum is that we are allowed to go back and revisit our work to improve on it, which makes it sustainable, unlike Waterfall which had no way of going back. Sadly, we had no time for testing in Elaboration due to the slow pace we were taking, because we had to fulfill multiple critical requirements on the APPENDIX 1F user stories at the same time, which wasn't too fun, because we couldn't see any progress until later in Construction.

So, after getting through a bumpy Elaboration, we finally got into Construction were almost everything was done very surgically because we tried to make the best out of the meetings we had with our supervisors before, and the meetings between our SCRUM master and Product owner where they discussed what we can implement in time, and what their expectations should be. Our app finally started working, firstly we had some problems with it not running as it was supposed to because of some music broadcasting issues, but we achieved our goal quickly. While still modelling the database and trying to store the bare minimum of the information required, we got to a point where we could proudly say our project was finally broadcasting music from the server side to the client side on different machines, which looked very pleasing. We were still doing some
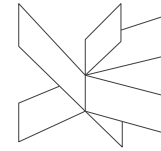
analysis and design on the way we implemented the main playlist and how we should show it to the user and how it will be played, while starting to test a lot of the stuff we did as accurately as possible, we made sure we used the ZOMBIE principles for our testing, so we have a lot of tests that will leave us with a good project without any bugs or errors(at least not any that we know of!). We were starting to deploy the program slowly but surely with multiple features added in a small span of days, just because the complexity of the project didn't allow us to add a lot of them at the start.

Finally, we got into Transition, the most fulfilling stage for all of us, which we consider is one of our best stages. We had our program working which we admired. So much that while working on the project we would play music on it rather than on other platforms, which we considered as a very big milestone. We started patching up everything, whether it came to small bugs in the final program or finishing up on the final reports (like this one!). We were in a state of bliss because we finally got through with everything and we knew we did a great job in the end. It is very important to mention that we tried hard to follow the UP Iterative Development, SCRUM roles, and approach to requirements so we had the best result by following exactly what we were told to do.
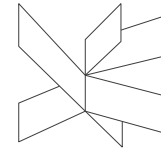
6 Personal Reflections

6.1 Dragos-Daniel Bonaparte

This project again showed to me that even though you come to classes daily and you do the exercises, there are still a lot of things that you need to research on before you are able to do them. The most difficult part of this project was to make the server send a song to the client. The conversion from file to bytes and back was so complicated at the beginning. In the sprint backlog this was my task and since it required a lot of research it took me a while until I was able to make it work. The MVVM design pattern has been easier and easier as the semester went by, so this was not an obstacle for me nor for my teammates.

The group contract worked like a charm again, we made sure that no one was not working but this time for us it was more complicated than usual, since 3 of us were having work twice per week in the afternoon. Fortunately, we gave up on some good sleep and woke up every morning at 8 or 8:30 and started the meeting at 9 everyday other than the weekend.

Following UP and SCRUM was a genius move since it made us work more efficient than ever. At the beginning of the project period, we started doing a project exactly like in the first semester, but after a supervisor meeting, we understood exactly what we needed to do. So, we started to code a full program every sprint, building on top of the previous sprint every single time. Our supervisor advised us to write more quality code than documenting heavily, and so we did, we gave our best efforts to achieve this app, working between work shifts, Danish classes, and personal life.

It was more than a challenge for the most of us, talking about projects with some of my classmates, everyone struggled with something, there was no team that had everything working perfectly from the beginning till end, which gave us some courage to continue, even if it meant that we might not be able to finish the program.
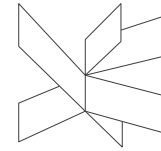
Looking behind at what we accomplished, I feel good about what we did, and at the same time I know that there is still so much to improve, but at the same time so much space to do so.

The advantage of this group is that we like to debate and laugh about a lot of stuff, we work between laughs and memes, and this atmosphere really motivates me, sometimes when the code does not work, one of us will just bring a meme out of nowhere and give you an idea or even a small smile, everything matters when stress and demotivation hits you.

The disadvantage is that we have common workdays and it was very hard in some sprints to work efficiently when all of us have a time frame of a few hours.

Everyone gave their best and everyone worked on what they knew best, and it shows in this app better than every other picture could.

6.2 Chiril Luncasu

This semester wasn't an easy task because I had a lot on my mind. I was working part time and I was a mentor, while I tried to learn and comprehend everything that was taught to us by our teachers, and I still had Danish classes that I attended. However, I can't say I was weak enough to crack under the pressure, so I just went through with it and gave it my best in every task that was assigned to me. Also, I learned a lot. I learned that time management is a very important skill I must learn to have an upper hand on the others and succeed and prove myself that I am more than just a simple student, that I can do tasks on my own. Another thing I learned is that SCRUM is much better than Waterfall, and I will most probably use it every time I will have the chance. Not only it helped me understand the project and work on it so fast and easy with an access to the tasks that I could do right there in a shared file with my group. I really love the flexibility it provides with letting you go back and work on your mistakes while keeping everything up to pace. Another thing I love is the fact that me and my teammates could fulfill tasks that they were sure they will be able to do while keeping a Sprint Backlog that would show us
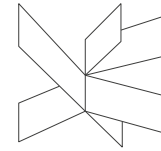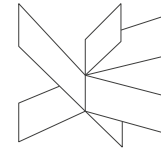
where exactly things went wrong and how far back, we are supposed to go to get to the problem.

I would lie if I'd say that the morale was at an all time high during the project, because I felt like everything I was doing wasn't enough and I started reconsidering my career choices, but after talking with our supervisors I caught my breath and was able to finally could understand that it doesn't matter how much progress we do, if we do a good job we will be victorious in the end.

Another major learned this semester is that I am not as good at programming as I thought I was. Back home I had a lot of experience, but I understood that my experience was mostly based on the practical side of programming, and I had no knowledge about theory, so when we got to the semester project, I had my first grasp on a big project that should follow theory. I was baffled and almost scarred of the fact that I sometimes didn't understand what was going on or why should we do something in a certain way if we could do it in an "easier" (at the time) way. I am very happy that I got this experience because it really humbled me, and it helped me achieve a new goal that I wanted to reach in programming. Additionally, I felt like I was learning programming from scratch again which made me recall a lot of fun and adventurous memories which I am very grateful for.

In a nutshell, I wasn't prepared for the semester project at the level I'd be happy with, and I certainly didn't understand how oblivious my logic was at the time. I had highs and lows, I went through a lot of change, and I am happy to state that I am a better programmer right now, than I was last semester, and I certainly would prefer to go through the experience of making another semester project like this!

P.S. I am not happy with the grade I got last semester and I believe I didn't sow myself in the best light, but I will try to be more accurate with my approaches and my tactics from now on! (Or in other words, I hope I get a much better grade! 😊)

6.3 Matas Armonaitis

This Semester project was quite a bit different than the previous semester. In the first one there were a lot of unknowns, and everything was scary but now having experience on working in SEP it seemed like this one will be easy. Little did I know that this semester it is going to be a lot harder than the previous one. First change was that I was in a different SEP group than last semester, the only person I knew was Dragos.

Second change that was a lot different is that we started using SCRUM as our methodology. Assigning scrum roles was exciting yet scary. The third change was that we had to decide what project do we want to make. This gave us a lot of room for imagination but also there were a lot of unknowns by doing so. Even when I attended every class and did all my homework, it was still a lot of learning during the project. The music program turned out to be a lot harder to make than we first thought about it. We had problems with the server not sending songs, we had problems that the program did not work on all our computers at first.

Also, for me personally I was doing most of the testing of the program and I had a lot to learn about ZOMB+E and how to do testing in MVVM.

So, about the group work. I really enjoyed this semester working as a group. The biggest problem was that three of us had jobs in the same workplace at different days, so most of the time not all of us could be present during our meetings, but we counteracted that by working every day from 9. Yes, we did not get a lot of sleep, but this was the way that I think worked well. Everyone was doing tasks and even if they were not completed in time, they were eventually completed. We never really needed to get angry because of the amount of work we were making.

The morality of the team I think is awesome. Even in the hardest of days at least some of us would have the mood to say a joke or show a meme that would brighten our mood. Even though I was the only one not a Romanian language speaker, it did not bother me. Most of the time we spoke in English, and no one was left out at any point.
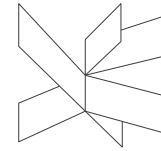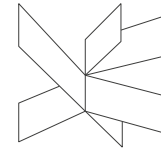
6.4 Dan-Sebastian Ceapa

During this project, I realized that even if we know some stuff, and have some knowledge, we will need always to learn something new, because it is okay, not to know everything. The toughest part of this project in my point of view was to connect the server to database. I had this task in one of the sprints, so for me it required to do spent some time on research in order to make it work efficiently. The MVVM design pattern was pretty tough at the start for me but, with the knowledge and experience I gained in class and during the project, it started to get easier.

We made a new group contract and, made sure that everyone is willing to work and of course we took in consideration that 3 members from our group have work. At the beginning it was relatively hard to get in the work mood, but after some days, we got used to it. We usually started at 9:00 AM every day, beside weekends.

Following UP and SCRUM was the best way in order to work more efficient. At the start of the project, we got a bit confused, because this semester we could choose that we want to make, but after some group discussion we decided that we will do and also supervisors helped us to understand that exactly we needed to do. In our group we were divided by roles as we used SCRUM. For this time, I was assigned as a Product Owner, which was a big challenge for me. During the project period I understood better how SCRUM can help you so much in a team. As we didn't have a customer in order to give us requirements for the program, I was responsible to prioritize the requirements and to do the product backlog. At the end of every sprint, I took a look at the requirements given to that sprint and tested how it works.

At the end of the project, I feel glad about what goals we achieved, but I know that there is also much work to do in order to make it better.

On one hand we could work together well, and to understand each other. We liked to have some debates on some problems in order to solve them in an efficient way. The atmosphere was very friendly, where everyone was smiling and showing some memes in order to lift up someone's mood. I can tell that it was like harmony in our group, and it really helps you to work at your maximum potential.

On the other hand, some colleagues have common workdays and it was hard in some prints to divide tasks that everyone is able to manage to finish it in time.

Every team member gave his best and worked on that they know they could handle it, and this we tried to show in our app, because we really loved it and made it with passion.

7   Supervision

We can't stress enough how much we achieved just by talking to both supervisors. Whether it was a question about programming, design, or motivation they always gave their best in helping us and we are very happy we could get that help. As it was mentioned before we had a lot of mentor meetings, we talked with them over email, and we tried to be as close to the correct development path as possible. We are very thankful for the aid they gave us, and for the inspiring attitude towards how we should approach our project. Also, we would like to mention that mostly we tried to use the mentor meetings because before we had a lot of insecurities about the first semester where we had some gaps in knowledge but then we got through it, which is amazing in our opinion.
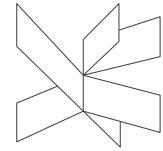
8   Conclusions

In a nutshell, the project we chose was hard, we tried our best to fulfill all the requirements, and we tried to come as close to a perfect execution as possible. However, we didn't implement everything that was expected from us, but we made sure that the other parts are perfect, and we can be proud of the parts that we implemented. Also, the best thing we did is ask for help from our supervisors, which we didn't do last semester, and we are very happy we got the courage, because the result ended up being amazing.