Reflection Report for Product-Based Assignments

Trondheim-Hacks

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Group number: Random PA group 4

Table of contents

Introduction

This reflection report demonstrates and reflects on the product-based assignment that this group has done during the course TPK5100 in the fall semester of 2022. The product of this project is a website that presents relevant information for exchange students in Trondheim, and it is called Trondheim-Hacks. The information is gathered by interviewing current and former exchange students in Trondheim as well as talking to organizations. The information is divided into 9 different topics on the website. These are: Housing, transport, neighborhoods, economy, food and drinks, memberships, apps, NTNU and trips. The goal is to pass on a proper overview of the experiences from previous exchange students that cannot be quickly googled. This means that the website cannot be used to find all the relevant information about a certain topic, but more as a guide in how to stand on the shoulders of former experience. The website can be found here: https://trondheim-hacks.webnode.dk/ Before deciding to specifically design a website the aim of the project was to increase the stress and chaos facing exchange students in Trondheim. When moving to a new place there is tons of information, suggestions, tips and tricks to gather, and the goal was to provide a better overview of these. This would hopefully result in less stress and chaos, and most likely make it easier for the individual exchange student to focus on making new friends and experiencing the new surroundings. Initially, it was not decided whether to design a website, an app or a brochure, but further investigation guided us to design a website. This report will describe and reflect on the work process and the value of the product.

A video of our work can be found here: https://youtu.be/6FJTdogtdks

Evaluation of Project management effort

This section focuses on the project management effort and evaluates to which degree this was a success or not throughout the project period.

When evaluating the organization of the project group it is a large factor that the group went from 5 members to 3 members throughout the project period. This impacted the first weeks a lot because of the uncertainties regarding the two members. The group was formed by the three of us that are still left and two others who joined the group digitally on BlackBoard. This should not be a problem because we attempted to reach them right away but without success. Time went by and we needed to deliver the pre-report which put a pressure on their attendance. One of them wrote that he was not taking the course the day we had to deliver the pre-report and the other we did not reach. We gave him responsibilities that were not on the critical path[1], so if he were not to take the course either it would not have an impact on the delivery date. The roles in the pre-report for the rest of us were clear and this made the project work very smooth. When the second member told us he was not taking the course we split the workload of his responsibilities between us, and this went well.

According to the remaining members of the group and our roles and responsibilities this was successful. As stated in the pre-report focused on developing the technical aspects of the product, and Rasmus Lundgaard did the research including the interviews. The communication between them has been important for the success of the project, and their cooperation and communication has been clear and rewarding. Rasmus Borrits has been the lead project manager and he has been in charge of communicating with the two former group members, and has been in charge of rearranging the workload after the group was reduced to three members. In total, the struggle with the former group has been challenging but the cooperation between the three of us that are left has been outstanding.

The risk management stated that there were risks and uncertainties regarding the type of product (app, brochure, or website) and the time that this type was selected. This was addressed by quickly making interviews about the product type, and these made it clear that a website was needed. This enabled Tobias to begin his work on the technical development of a website early. The interviews also showed us large amounts of willingness to participate from exchange students, and this was also stated as a risk in the pre-report but turned out not to be

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[1] The critical path is "the longest path from end to end (read: in the complete activity network) which determines the shortest project length" (B.)

a problem. The risks regarding the product's ability to make the difference that was intended is described in the next section about the evaluation of the impact.

The communication plan turned out to be a good tool. The challenges regarding the former members have already been described so this will focus on the communication between the three of us. We have held weekly meetings where we presented the work we have done, and Rasmus Borrits made sure that the project was on the right track and was going according to the plan. This seemed unnecessary at times because we live in the same house and spend most of the time together, but it was nice to have a formal time in our schedule where everybody's focus was on this project. In the pre-report it was also stated that we would use WhatsApp as our communication platform, but this turned out to be unnecessary now that the group only contained us so this type of communication was replaced by the spoken word. The communication to the stakeholders (the exchange students that were interviewed) was very successful because we aimed to be flexible to their schedules in order to make things happen. According to the originally stated success criteria that were creating value in the process and for the end users it is considered a success. The value of the process was a lot of learning which is described lower in this report. The communicational challenges along the way have created value for us because we now have experience in dealing with such matters. The created value of the end user is the other success criteria and this was also a success. This is described further in the next section.

Looking at this evaluation of the project management effort it is fair to agree on the statement that it has been a success. In order to strongly agree on the statement we believe that all aspects should have been outstanding which we cannot defend.

We evaluate our project management effort as successful:

Scale	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Response				**X**	

Evaluation of the impact (Project success)

Trondheim is a city with a lot of exchange students, and therefore a lot of offers for exchange students. The beginning of the exchange is packed with information meetings, offered memberships, flyers, hints, suggestions, and general information about the city. This means that exchange students have to navigate in this chaos of information while making new friends which can be quite inconvenient. The value of our product is to reduce this chaos and our target audience is therefore the current and future exchange students in Trondheim. During the interview phase of the project where we talked to a lot of current and former exchange students we gathered a lot of information. The interviews contained questions like "What would you have liked to know before going on exchange?", "Which factors contributed to a degree of chaos in the beginning of your exchange?" and "What was an unpleasant surprise during your exchange?". It was our expectation that the answers to these questions would be information that would be useful for the end user. If we just collected the information that the exchange students easily could find we could not have guaranteed any actual product value. To examine the usefulness of the final product we made a survey. We would like to get a lot of visitors on our website and know what they thought afterwards. So we posted links to the website and survey on a large WhatsApp group (with over 500 members) for exchange students in Trondheim, and had a TA post the links in the TPK5100 BB-site. We also sent them to flatmates and friends we made on our exchange and asked them all to look at the website and respond to the survey afterwards. The results of the survey are presented below.
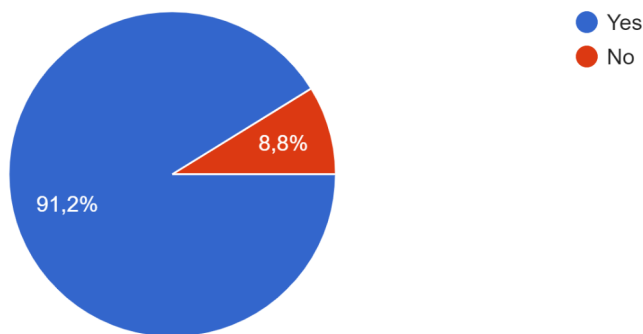
What is your status in Trondheim?
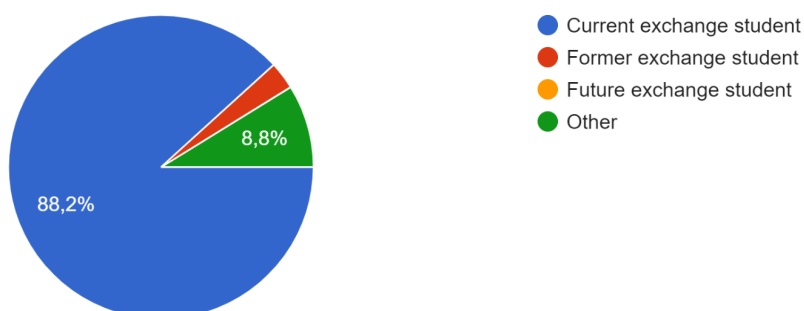
The first question was to make sure that the people answering the survey were actually somehow exchange students. We did get 9% non-exchange students, but this does not

completely disqualify them for the survey as long as we have a majority of exchange students.

Did you visit the website trondheim-hacks.webnode.dk?


The second question was to make sure that the respondents had actually been to our website. Even though we wrote in the description that they should not answer the survey before visiting the website this still happened for 9% of the respondents which disqualifies them for the survey. We did not have the ability to remove their answers from the survey, so this makes the other answers uncertain by 9% which is not preferred but still ok.

Trondheim Hacks could have helped me during the beginning of my exchange.
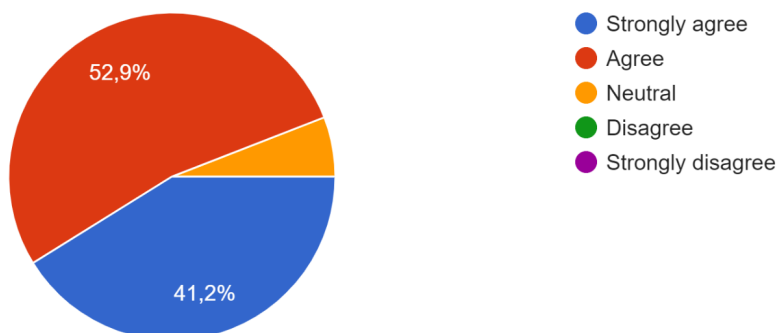
The third question is a statement where the respondent has to choose how much they agree on the statement. It is asked to get knowledge about how the exchange students could have used the website individually and it seems that it could have helped 94% of the respondents in the beginning of their exchange. This is good news for our product and indicates that it is valuable to most of the respondents individually. No one said that they disagreed or strongly disagreed with the statement.

I find the website Trondheim Hacks useful.
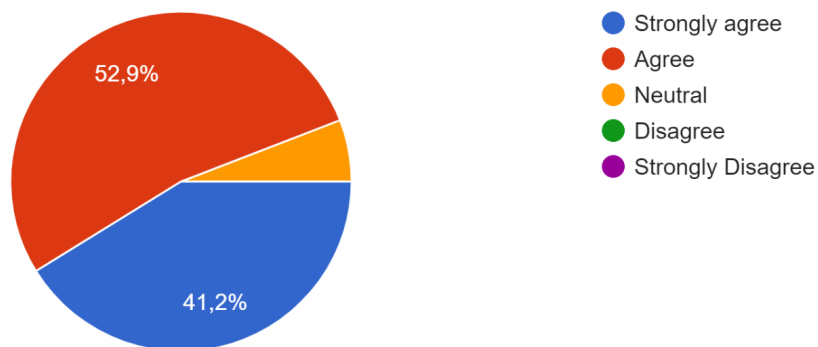
The last question is formulated as a statement as well, and the amount of respondents that agrees is again 94%. This indicates that the product is useful, and the fact that nobody disagreed or strongly disagreed on the statement tells us that this website has a potential.

The project did create value to the users. In the survey we got a lot of feedback as well as in the chat where we reached the exchange students. The feedback was very positive, and many said that they wished they had had access to the website before, and that they hope we can make sure to reach the next exchange students with the website. We also got a lot of comments about what other features would be valuable on the website. We did implement some of the suggestions, but potential further work on the website should definitely start by looking at these comments. Overall we agree on the statement that the quality of our final results are outstanding. The feedback from the survey was rather positive so we cannot disagree or be neutral about the statement, but the comments about other functionalities and missing information makes it impossible to strongly agree.

We evaluate the quality of our final results as outstanding:

Scale	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Response				**X**	

Factors that have contributed to failure/success

In the pre-report we stated a list of success factors that we wanted to highly focus upon in order to make the project a success. Among these success factors some have turned out to have a bigger impact for this specific project to succeed. The success factors were categorized in three success groups: project management success, process success, and project success.

Project management success and failures

The group chose to focus on the following factors for the project management to succeed. It also turned out to have a big impact for the project to succeed in the end.

The first factor was to make sure to make clear roles and responsibilities for each group member. These roles and responsibilities were delegated early in the project stage, and made it possible for each member of the group to quickly start working on the tasks they were responsible for. Another success factor that was focused upon was to early address the risks[2] in the project. The risks were addressed in the pre-report. Here it was clear that there was some uncertainty about the complexity of developing an app or website, uncertainty about the willingness of the current and former exchange students to participate and uncertainty about the product and its abilities to make a difference for exchange students.

Since there was a high focus on the success factors of making clear roles in the group and listing the risks early and people knew and were kept up to their deadline, it was possible for the group members to start investigating the risks in the area early. Rasmus Lundgaard who was in charge of interviewing the stakeholders[3] knew that he had to quickly get in contact with some former and current exchange students to see their willingness to be invested in the project and get some information about what kind of product was requested. It was clear that a website was the most requested. This knowledge made it possible for our group member, Tobias, who was in charge of developing the product and responsible for the product's

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[2] Risks in this report are referred to as "… an uncertain event or condition that, if it occurs, has a positive or negative effect on one or more project objectives." (Project Management Institute)

[3] Stakeholders are "individuals and organizations who are actively involved in the project, or whose interests may be positively or negatively affected as a result of project execution or successful project completion" (Project Management Institute)

technical function, to start his work. He had already investigated the complexity of developing a website and started creating the website with the knowledge the group had from the interviews.

The critical path of the project was when the product (website) had to be developed and combined with the information from the interviews. Already a month before the deadline of the project, a finished website was developed. It was now time to get feedback from exchange students of Trondheim to see the value of the website and its abilities to make a difference. To investigate this, the survey was put out. The survey made it clear for us that the product had value for exchange students. In the survey we asked the participants for feedback on what could make the website better, and there were some good suggestions in between that we were able to implement in the final product to make the website even better.

In the pre-project a scheme for change was not made. Since responses from two of the members in the group were vague in the pre-project period, it was unclear whether the group members were aboard on the project or not. In the pre-project report one of the group members was counted in, but in the end they ended up leaving the project. The project management could've benefitted from a plan in the event of the members leaving the group. It didn't end up having too much impact on the project since the lack of interest in the project resulted in them having lower responsibilities than the rest of the group.

Process and project success and failures

One of the factors that led to success in the process was that the group was highly focused on close cooperation with the key stakeholders - the exchange students. The feedback from the exchange students were crucial for a smooth process both in the early and late stages of the project. To keep the excange students satisfied and involved in the project, we made competitions for them to win prizes in exchange for their feedback. This was a huge success. Furthermore, we focused upon good communication and trust between group members, this was something important for knowing the involvement of two of the lacking group members. Instead of being afraid of conflict, the involved group members asked the other two lacking members early in the process for an honest answer whether they wanted to be involved in the project or not. They turned out not wanting to participate which saved the process further complication later on.

Most important lessons learned

Shared project management knowledge and vocabulary

Having the same management knowledge and vocabulary facilitates the planning and makes the process easier to handle. Our advice is that the persons doing the planning first agree on a way to do the managing and share some of the crucial vocabulary. We learned that when several people are working together with the planning and leading of the project, the common knowledge about leading and the expected process gives a huge advantage to do great and effective planning without any huge disagreements. Our experience suggests that knowledge about management is truly a huge advantage when aiming for a successful project process.

Reduced number of group members and communication

When working together as a team it is important to make sure everyone participates in the project to estimate what work resources are available throughout the project - communication needs to be good. Our advice is that when team members do not seem to be active and helping out they need to be contacted. It is crucial to get in contact with the team members as fast as possible to include them in the project. But our experience suggests that slacking team members easily try to avoid the group and stall the process of getting them to do work. Therefore what should be done is to take a serious talk early on in the process with the slacking members and make sure that their help is appreciated but due to planning we need to know how our work resources should be delegated. Our serious yet respectable approach was welcomed - but unfortunately the two slacking members ended up not finishing the course.

Uncertainties

You should address the uncertainties with the biggest impact early in the project. Our advice is to make sure you know what uncertainties there are to be encountered in the project and to address the ones having a huge impact on the rest of the project as early as possible. We learned that choosing the platform to generate our product (app, website, brochure) had a huge impact on our schedule and needed skills and therefore needed to be addressed early. Our experience suggests that when the biggest uncertainties are known and addressed early, the project seems to go smoother since everyone knows where the critical uncertainties are and where to allocate our time.

Reflection on learning and unlearning

This project is the first project that we have done with this amount of project management skills and knowledge. This has obviously given some reflections on the project work, and the lessons learned will be presented in this section. It will focus on the knowledge, practices and attitudes that we have gained during working on our project.

What did we need to learn:
- Use the management tools in practice and not only theory.
- To focus on the objects in the critical path.
- Learn tools to build our website.
- Communication with other nationalities.
- Gather knowledge from a lot of people in a short time.
- Do risk assessment and plan for uncertainties.

Where learning was critical:
A lot of the important things we learned during our project has influenced how well our project ended up being. One of the main things that were crucial to our work was to do a good risk assessment as well as finding the uncertainties which could have a huge impact on our project. By addressing these early we were able to remove the uncertainties which allowed the process to go smoothly. We also talked about the critical path all the time to make sure we did allocate our resources to the right tasks. One of the hold backs we made sure to encounter in the beginning was the lack of knowledge about building a website. The early addressing made it possible to learn the important things early and thereby ensure the end product was realistic.

What did we need to unlearn:
To go with the flow of the project - but instead plan ahead
To believe people will do work and participate by themselves

In our previous projects we did not do the amount of planning we did in this project. We had to plan instead of just going with the flow as we were used to. When tasks on the critical path needed to be done this had to be the focus regardless of how fun one or anothers tasks were. We also encountered a problem with two team members in the first part of the project. These

two did not participate in the group meetings but to include them we did contact them. This resulted in us moving the meeting such that everyone could attend only to be disappointed about a no show from the two others. In the planning we did plan for being 5 members. We have always worked with groups that were engaged in the different projects we were working on, and therefore we tried over several weeks to include the other two members. All our work to bring the guys into the group ended up being worthless as both the guys did not finish the course. Here we learned the hard way that we can not just anticipate people to be engaged and work on the project. When planning and working you have to plan for the things that are certain and not just how you would like it to be.

List of references

Works Cited

B., Hussein. *PowerPoint*. 2022.

B., Hussein. *The Road to Success: Narratives and Insights from Real-Life Projects*.

Fagbokforlaget, 2018.

Project Management Institute. *A guide to the Project Management Body of Knowledge*

(PMBOK Guide). Project Management Institute, 2000.

Pre-report for Applied Project Management

by Rasmus Borrits Jakobsen, Rasmus Lundgaard Madsen, Tobias Steen Kristensen and Håvard Landråk

Product

The product that this project aims to produce is a "life-hack-protocol/brochure/app/website" for exchange students who stay in Trondheim for one semester. This service will be a collection of experiences that previous exchange students have made. It will also provide an overview of good offers around town as well as the most important memberships and clubs that one can join. It will also guide the exchange student through all the different bureaucratic procedures that need to be taken care of. The service will be divided into three main groups: Before your stay, during your stay, and after your stay.

Outcome

The expected benefit from this service is to make the exchange more manageable for the individual exchange student so they can focus on learning, experiencing, making new friends and build better relationships. Another expected outcome is for the different organizations to receive fewer questions and inquiries from these new inhabitants in town as well as getting more members. A third potential outcome is for the whole town to have foreigners that are less stressed and confused which will make everybody happier. And last but not least it will potentially create future Trondheim ambassadors that go back to their home countries and tell their friends and families about how great a time they had in Trondheim and how welcoming the whole town was.

Stakeholders

The stakeholders are:

-   Current exchange students
-   Former exchange students
-   Student organizations in Trondheim (NTNUI, sit, Studentersamfundet, ESN ect.)
-   NTNU foreign office
-   Production (printers, app/website-development, etc.)

These will be contacted at the very beginning of the project to make sure that they are willing to participate in an interview. The production will also be researched as soon as it has been decided whether to develop a brochure, an app, or a website.

The current exchange students will be involved in the development of the two first chapters: Before your stay and during your stay. This involvement will mostly be by interviews but in the beginning of the project – where it still is possible to make changes – they will be asked more general questions that might give us information that changes the structure of the product a bit. These uncertainties will be made into certainties in the very beginning, so they don't affect the workload unexpectedly later in the project. The current exchange students are likely to have interest in this project and they are also quite influential. This means that we need to collaborate with them.

The former exchange students will be interviewed on an online call and their answers will be used to form the chapter "After your stay". This chapter might be the most difficult chapter since we don't have any experiences within the group of being a former exchange student. These former exchange students need to be satisfied in order to participate because they don't have much interest in the product since they've already moved on with their lives. This means that if they for example are available at certain times we need to adapt to their schedule.

The student organizations in Trondheim will get the chance to talk about their offers for exchange students. Most memberships are for a full year but if these organizations offer half-year memberships this will be a good time to communicate that. The "during your stay" chapter will also give general information about what these organizations do and what the differences between them are. The student organizations in Trondheim are also likely to have interest in this project and they are also quite influential. This means that we need to collaborate with them as well.

The NTNU foreign office held an information meeting at Scandic (and another one at Gløshaugen) in the very beginning of the semester. This meeting had loads of information that could be boiled into more concentrated and manageable ways of presenting. This will be done in the first two chapters where it makes the most sense, and the information from the NTNU foreign office will be provided by interviewing them and by looking through their PowerPoints from these introductory meetings. Also, the NTNU foreign office are likely to have interest in this project and they are also quite influential. This means that we also need to collaborate with them as well.

Whatever the product will turn out to be (brochure/app/website) the stakeholders from the production will be involved by satisfaction. They don't have any interest in the project but we need them to provide their resources so we must keep them satisfied.

Risk assessment

The risks of this project are:

- Uncertainty about complexity of developing an app or a website
- Uncertainty about the willingness of the current and former exchange students to participate
- Uncertainty about the outcome of the product and its abilities to make the difference stated in the outcome section

These uncertainties will be addressed differently.

The uncertainty about the complexity of developing an app or a website will be addressed by doing quick research upon what the exchange students are looking for. Right after that the product type will be selected to leave the most possible time to gain knowledge about developing the selected product type (brochure, app, or website).

The uncertainty about the willingness of the current and former exchange students to participate in the project will be addressed by involving them in the project and collaborating with the current exchange students. The former exchange students will be addressed with focus on satisfying them and adopting to their needs.

The uncertainties about the outcome of the product and its abilities to make the difference stated in the outcome section will be addressed by asking the current exchange students what they think about the product that we are developing. The operation phase of our products lifecycle is not entirely available to make conclusions on during the project period (the semester), so we need to ask the upcoming end users beforehand in order to get an estimation of the outcome of the project.

In order to estimate the size of the risk and thereby be able to prioritize which risk needs to be handled first, a risk impact matrix is done. It is here clear that the consequences of not being able to make an app or a website will have a critical impact on the project, since the project then will be over before it has even begun. This uncertainty therefore needs to be examined first.

Risk assessment
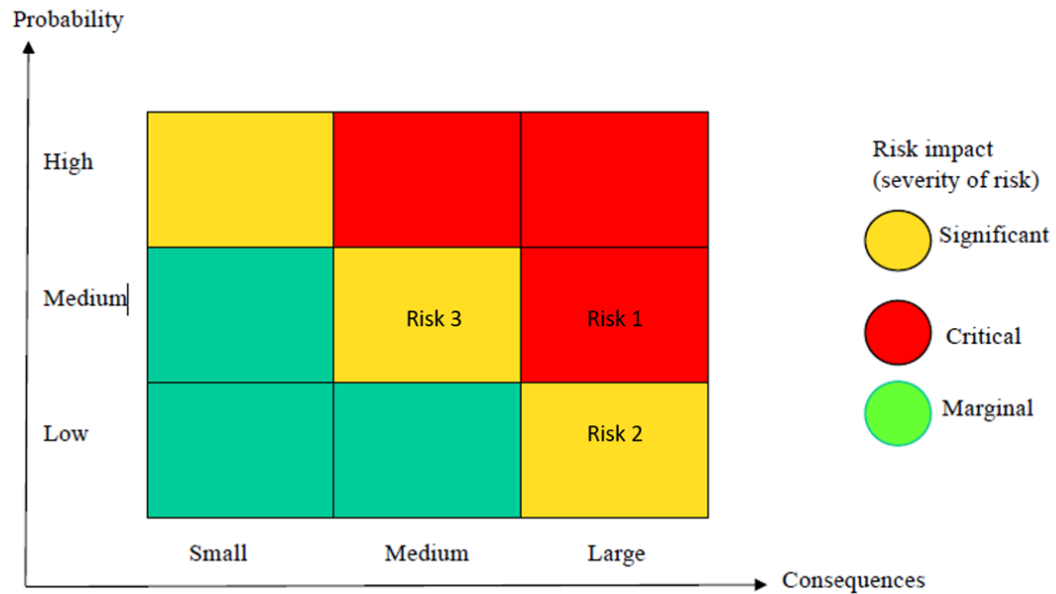
| Group 4							
Risks	**Description**		**Risk owner**	**Risk status**	**Probability**	**Impact**	**Risk Level**
Risk 1	Uncertainty about complexity of developing an app or a website		Tobias	Active	Medium	Severe	Critical
Risk 2	Uncertainty about the willingness of the current and former exchange students to participate		Rasmus L	Active	Low	Severe	Significant
Risk 3	Uncertainty about the outcome of the product and its abilities to make the difference stated in the outcome section		Rasmus B	Active	Medium	Medium	Significant

Skills

The skills that we need to acquire in order to produce our product are:

- App/website developing skills
- Interviewing skills to make sure we do not bias the ones we interview

Both of these acquired skills will be learned by using the internet. We aim to find literature on interviewing, and we need to develop our programming skills by using YouTube tutorials.
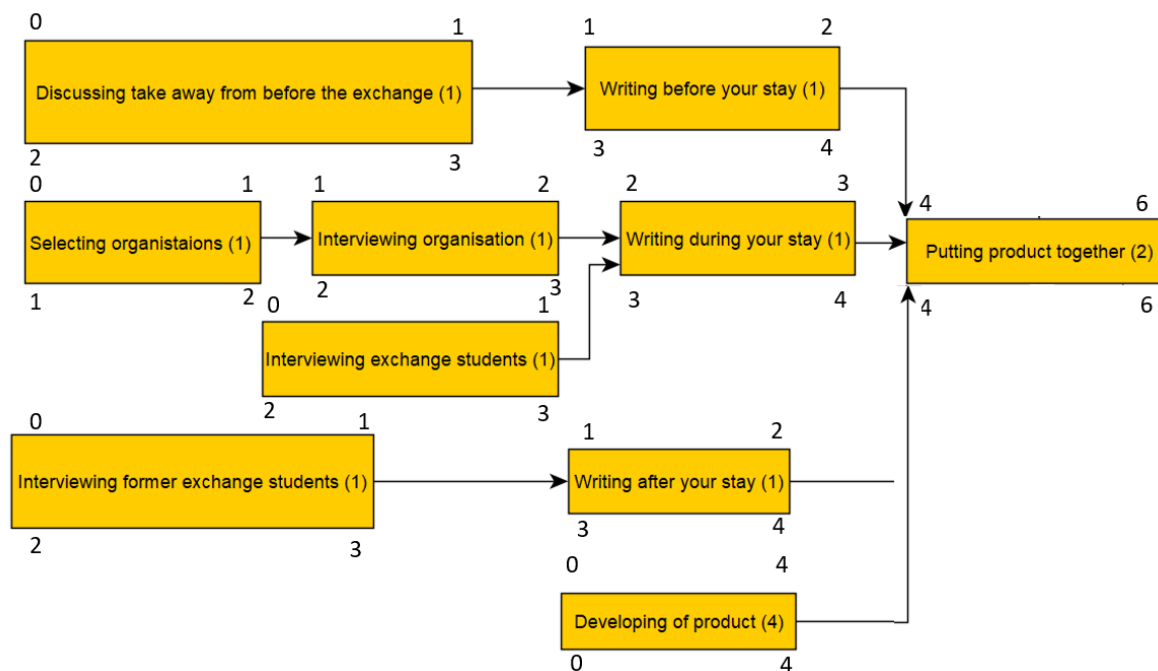
Project breakdown structure

The picture below shows the project breakdown structure of the project's whole lifecycle:
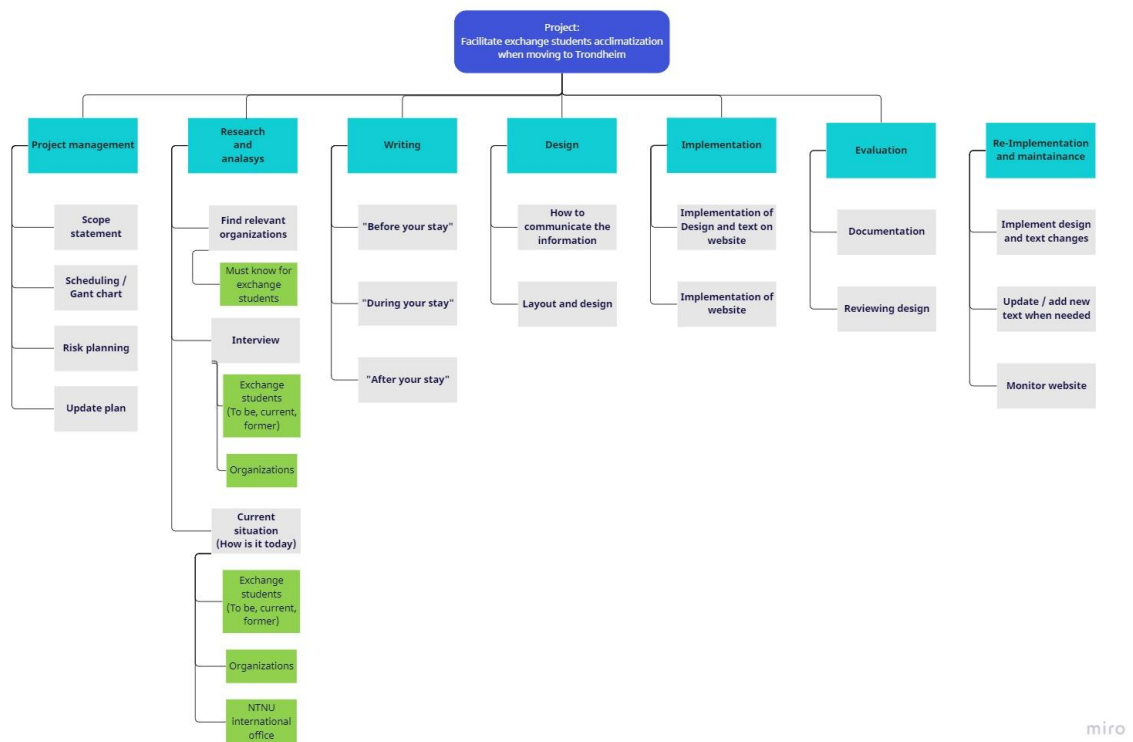
Project schedule

The picture below shows the project schedule, and it shows that the developing of the product as well as putting the product together is the critical path:

Succes criteria

To know what the goal is and how the project can be defined as a success or a failure the criterias and indicators are formulated:

- Create value for end users
- Complete the project
- Completion date
- Everebody is happy

Succes factors

For the project to be a success a list of success factors that are highly focused upon is made. The success factors are put under one of the three success groups to have a better overview. The success factors per success group is listed below:

Project management success:

- Clear roles and responsibilities for each group member
- Follow-up on plan/time schedule
- Early addressing of the risks in the project

Process success:

- Good communication between group members and stakeholders
- Involvement and happiness of all group members and stakeholders
- Close cooperation with end user / feedback from exchange student
- Honesty and trust within the group members

Project success:

- User friendly product that gives a good overview of the information to the exchange student
- Feedback from current exchange students on the end product
- Exchange students find the project facilitation their acclimatization in the process of moving to Trondheim
- The product can be updated and reused for every semester start

Roles and Responsibilities

Rasmus Borrits Jakobsen is the lead project manager and is responsible for the time management as well as the product being on the right track in order to achieve the success factors. He makes sure that the stakeholders are treated according to the plan.

Tobias Steen Kristensen is in charge of the development of the product and has the responsibility of the product's technical functionality.

Rasmus Lundgaard Madsen oversees the interviews and is responsible for the communication with the stakeholders and doing the interviews.

Håvard Landråk is in charge of the documentation of the interviews and is responsible for the quality of the articles in the final product.

It is yet to be decided if Denis Haskaj is in the group. It has not been possible to reach him so far.

Communication plan

In order to be efficient and to make a great product the group intends to perform excellently in internal communication. Therefore, the group has setup the following list, to help facilitate good communication as well as making sure everyone knows what is going on and feels included:

Weekly follow-up meeting

- These meetings are held every week. Everyone must present the work they have done since last week at the meeting. This also makes it possible to discuss challenges some might have met and make sure everyone is on the right track.
- The meeting will also include the status of the project, and how the project is moving forward compared with the original plan. Thereby everyone knows what is going on with the project and has an idea of what will be the next step in the process.

Communication when not together will be in the project WhatsApp group. Here the main communication shall be related to the project, the tasks and when to meet up. This is how the internal communication will be done.

The external communication to the people we need to interview will begin by either email (for the organizations) or by reaching out physically (current exchange students). The former exchange students will be contacted by Facebook. The actual interviews will be physical for

the organizations and for the current exchange student and the interviews with the former exchange students will be an online meeting (teams or zoom). The planning of the interviews will be on the stakeholders preferred platform (Facebook, e-mail og WhatsApp) to keep them satisfied. The stakeholders will be frequently updated and the ones that have critical influence on the project will be collaborated with.