Requirements Engineering - Project mission V2

Group Alfa

Julia Blomgren
ju6140bl-s@student.lu.se

Emma Haggren
em5261ha-s@student.lu.se

Rafael Holgersson
ra6147ho-s@student.lu.se

Oliver Levay
ol1662le-s@student.lu.se

Victor Mattsson
vi2260ma-s@student.lu.se

Aurora Shuti
au3061sh-s@student.lu.se

January 2025

Contents

1 Introduction

Do you know a child with difficulties in school? Our mission at SquolGame is to revolutionize the schooling system and make education fun for every child. In Sweden, we have great inequality in school depending on if the parent can help with homework or not, and children today have a harder and harder time concentrating in school. The goal is to make learning addictive and fun for every student and not leave any student behind even if they have a parent that cannot help at home or a teacher that does not have the passion required to motivate learning effectively.

We will try to remedy these issues with our stakeholders at every step of the process. The team will talk to teachers and students in order to get input about their difficulties in teaching and learning.

1.1 Main goals

1. Increase the average students' results at standardized tests by a statistically significant amount.
2. Increase the average perceived fun by students by a statistically significant amount.
3. Increase the average perceived motivation by students by a statistically significant amount.
4. Increase the average perceived student participation by a statistically significant amount.
5. Make it easier for parents to monitor and follow their children's progress.
6. Make it easier for teachers to discover collective and individual issues in their classes.

2 Product context diagram

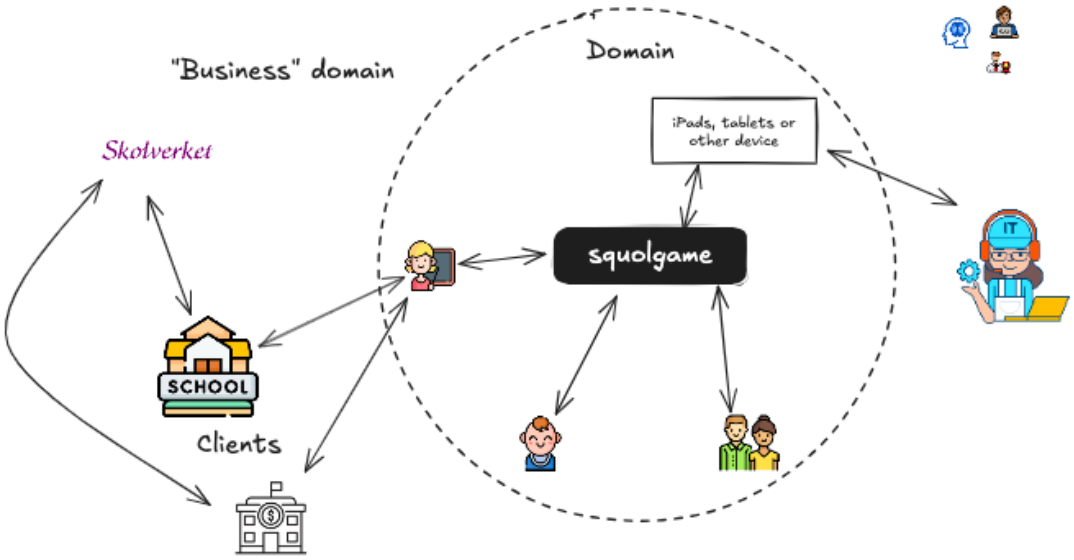


Figure 1: A context diagram of SquolGame's user roles, external systems, interfaces and more.

Figure 2 shows the context diagram for SquolGame. Inside of the domain there are the direct users, which are the children, the teachers and the parents. The children will use the system when doing shoolwork, such as homework and exercises during class. The parents will be able to check how it is going for their own

children, for example if they are done with their homework.Lastly, the teachers will use the the system for checking the results of individual students and the entire class. By doing this they may be able to see if there are any exercises that many children struggle with or if any kid needs extra help. The teachers will communicate with the rest of the school, which can either be public or private, about the progress of the students. Skolverket will take part of the students performance in school and be able to see if the SquolGame actually provides real help for the students. To be able to use the the system the users will need to use a some kind of tablet or computer. Therefore there is also a need for IT-help incase of issues with the technology.

3 Participants and potential external stakeholders

3.1 Participants

- Teachers: They need to use the tool to set up the learning environment that needs to be done
- Students: The app is aimed at children, which comes with its unique challenges.
- Parents: Parents can use the app to monitor their children's homework and learning progress

3.2 Potential external stakeholders

- Policymakers: They decide what is important for students to learn.
- Politicians: If we want to go the "offentlig upphandling" route it will be important to adhere to their requirements.
- Authors of Nationella Proven: Important standardized tests that are used to measure how effective the education is.
- Authors of learning books: We will hopefully replace books and other learning material, and this needs to be done by professional educators with experience in the field.
- Schools: Schools usually have a very limited budget, but perhaps we can make the solution cheaper if we replace all the other systems.
- Private Schools: Private schools earn money by their students getting good grades so our tool should be very attractive to them. It is also easier for a private school to invest in our company compared to public schools.

4 Planned activities

Iteration 1 focuses on collection of stakeholder elicitation and drafting the project skeleton and its main feature requirements. It builds the foundation for the requirements and how the product should work.

Iteration 1		
Activity	**Start**	**End**
Stakeholder analysis	25-01-29	25-02-02
Stakeholder elicitation	25-02-02	25-02-07
System Requirements draft	25-02-03	25-02-07
Project Experiences draft	25-02-03	25-02-07
Release 1 Finalization	25-02-07	25-02-09

Iteration 2 focuses on further development of the requirements based on the features from Iteration 1. This Iteration starts building out the Data Requirements more and continues on with the Project Experiences. It also starts with some outlining of the Design-level requirements. It also has the beginnings of a release plan for R4, R5 and R6 and a validation checklist to aid the other group.

Iteration 2		
Activity	**Start**	**End**
Stakeholder elicitation	25-02-10	25-02-15
System Requirements continuation	25-02-10	25-02-19
Project Experiences continuation	25-02-10	25-02-19
Validation Checklist	25-02-20	25-02-23
Release plan draft	25-02-17	25-02-20
Release 2 Finalization	25-02-21	25-02-23

Iteration 3 finalizes the project and its parts. It also contains the presentation which then further improves the final project.

Iteration 3		
Activity	**Start**	**End**
Validation Report	25-02-24	25-02-27
System requirements finalization	25-03-26	25-03-03
Release plan finalization	25-03-26	25-03-03
Project Experience finalization	25-03-26	25-03-03
Conference Presentation	25-02-28	25-03-03
Discussant Questions	25-02-28	25-03-05
Improvements based on feedback	25-03-05	25-03-06
Release 3 Finalization	25-03-06	25-03-09

Time spent is expected to increase over time as the project grows in size and the additional activities such as the conference presentation and validation of other groups. Total estimated time per participant is 80 hours.

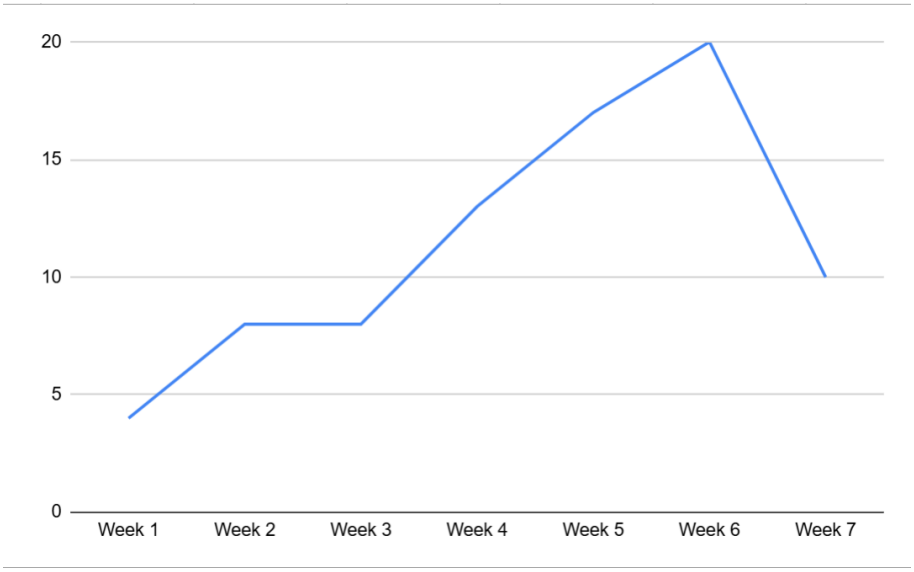


Figure 2: Estimated spent time per week per participant

5 Roles

- Emma will be the PM: Project, Process, Prioritization and Release Manager
- Aurora will be the SM: Stakeholder Manager
- Oliver will be TM: Tools, Documents, Experiences and Version Manager

- Oliver and Emma will be EM: Elicitation and Prototyping Manager
- Julia will be QM: Quality Requirements Manager
- Victor will be DM: Data Requirements Manager
- Rafael will be VM: Validation Manager

Project Mission v2

Team: Beta

Team members: Frida Ekman, Signe Johansson, Angelica Larsson, Christopher Meltzer, Christophe Ekendahl, Ellen Hedberg

Product name: EduBee

Background and purpose

Current learning platforms such as Canvas and Moodle are hard to use and inefficient. Several teachers choose to redirect students to external web pages indicating that something is wrong with current learning platforms. It could be due to missing functionality, a bad user experience and lack of customization. Furthermore, as students we experience great frustration trying to navigate through course pages that follow inconsistent formatting.

Hence, the aim of this product is to provide a better alternative to platforms such as Canvas. Students and teachers supplement Canvas with other services in order to achieve necessary functionality and user experience. Such services are for instance scheduling, video, and chat services. Instead, we want to integrate these services into the learning platform itself, utilizing existing specialized functionality instead of trying to create our own version.

The purpose of this project is to create a learning platform that provides a great user experience for teachers and users alike.

Context Diagram

The diagram in figure 1 describes the initial context of our product (inner and outer domain), with the users and systems that it interacts with. Centrally, we see the EduBee platform. Teachers interact with the platform by uploading teaching materials, grading assignments, etc. Students interact with the platform by learning, communicating with students and teachers, submitting assignments, etc. Some systems our platform interacts with are the social media Discord, the scheduling tool TimeEdit, and the video hosting platform youtube. All of these are internal stakeholders, since they interact directly with the system.

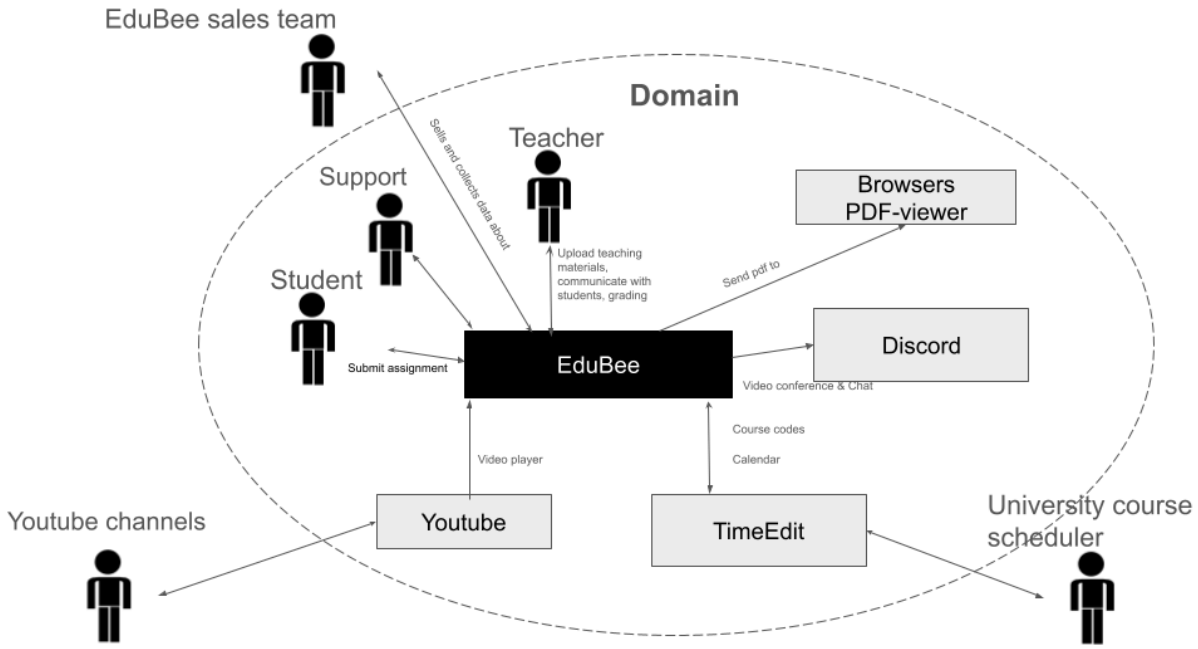


Figure 1. Context diagram for the EduBee system.

We choose the systems, Youtube, TimeEdit and Discord, based on personal experience, but we will also conduct interviews to validate what systems our users would like.

Participants and potential external stakeholders

Participants in our project are tech support, developers and the sales team.

Some external stakeholders for our products include our competitors; Canvas, Moodle, etc. However, there are many other groups impacted by our product outside our company. For example, our customers, the university. The users, students and teachers are also important external stakeholders. Furthermore, third party integrations such as Discord, Youtube and TimeEdit are external stakeholders.

Planned Activities

Project Meetings within the group every week.

R1 deadline **February 09**
R2 deadline **February 23**
R3 deadline **March 09**

- Specification techniques - the context diagram will be updated continuously during the project.
- Interview (students and teacher) - initial elicitation, 2 interviews per person
- Read relevant literature

Activity	Deadline	Estimated hours/person	Number of persons working
Prepare interview questions for initial elicitation	29/1	2	6
Supervision meeting 1 + discussion	30/1	1	6
Perform initial elicitation (brief interview - semi structured, notes will be taken)	4/2	1	6
Summarise results from elicitation	4/2	1	6

Analyze results from elicitation together and create requirements	7/2	4	6
Overview description	9/2	2	2
System Requirements	9/2	2	2
Project experiences	9/2	2	2
Release R1 finalization	9/2	1	6
Release R1	9/2	Above hours	
Prepare questions for internal validation	10/2	1	6
Internal validation - ask customers once again	12/2	1	6
Supervision meeting 2 + discussion	14/2	1	6
Refine context diagram	23/2	1	6
Refine requirements according to validation above	23/2	4	6
Imaginary release plan (when to implement in the future)	23/2	2	6
Release R2 finalization	23/2	1	6
Release R2	23/2	Above hours	
Validation Checklist	23/2	2	6
Validation Report	27/2	3	6
Supervision meeting 3 + discussion	7/3 (preferably early w7)	1	6
Release R3 finalization	9/3	1	6

Release R3	9/3	Above hours	

Responsibilities of project members

Roles

- PM Project, Process, Prioritization & Release Manager - Ellen
- SM Stakeholder Manager - Christophe
- TM Tools, Documents, Experiences & Version Manager - Frida
- EM Elicitation & Prototyping Manager – Angie
- QM Quality Requirements Manager – Signe
- DM Data Requirements Manager - Signe
- VM Validation Manager - Christopher

Questions for supervision meeting

- Any more stakeholders that we can elicit requirements from? (other than students and teachers)
- Do we have to add a third stakeholder? We’re thinking about SSO managers, but we’re not sure if they are OK with us wasting their time…
- What do the different roles d

Project Mission - EasyTrip

Jonathan Ahlström Ossian Gewert Jacob Jönsson Simon Persson
André Roxhage Felix Sundholm

January 27, 2025

Version 2

ETSN15 Requirements Engineering

Group Gamma - EasyTrip

Contents

1 Background, purpose and goals

1.1 Background

The travel industry is a large and competetive sector with many different actors. The market is dominated by a few large companies, which makes it hard for smaller companies to compete. In the recent years, services like Momondo and Flight Scanner have gained popularity by offering a service that compares prices from different airlines. This has made it easier for customers to find the best prices for their flights. However, these services are not perfect and there is still room for improvement.

In this project, we will develop a new service called EasyTrip. The goal of EasyTrip is to provice a better service than the existing ones. We will do this by offering a more user-friendly and interactive interface, as well as by providing accurate and up-to-date information. By chosing a starting point, we will compare and visualize flight prices using a map. This will make it easier for the user to find the best prices for their flights, while also exploring new destinations.

1.2 Purpose

The purpose of this product is to provide an easy-to-use travel planning tool that enhances customer satisfaction by comparing flight prices efficiently across different geographic areas.

1.3 Business Goals

- Increase market share by competing with established platforms like Momondo and Flight Scanner.
- Generate revenue through partnerships with travel agencies and ad placements.
- Build a user base of travelers who trust the platform for accurate price comparisons.

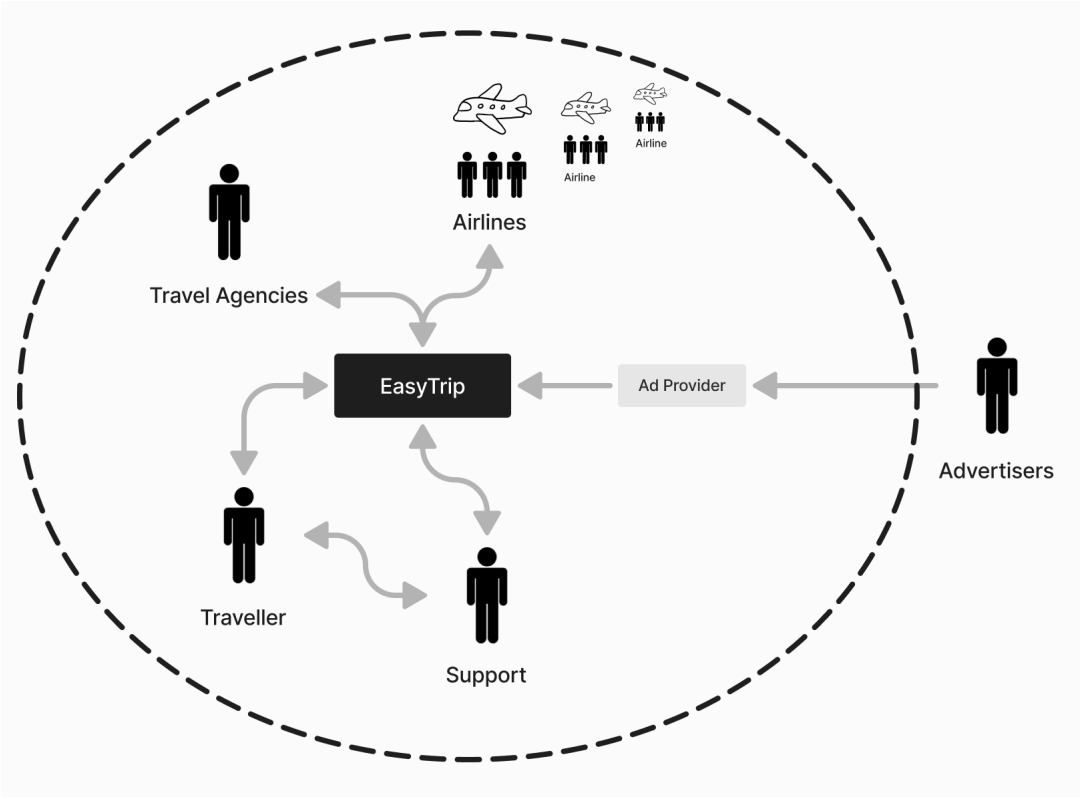
2 Product Context Diagram

User Roles:

- **Primary Users**: Travelers aged 18-65, using the platform to plan trips.
- **Secondary Users**: Family and friends involved in the traveler's plans.
- **Tertiary Users**: Travel agencies providing data and bookings.
- **Non-Obvious Actors**: Customer experience support teams ensuring user satisfaction.

External Systems:

- **Trip planning Integration**: Retrieve flight price information and availability from travel agencies such as SAS, Norwegian, etc.
- **Map Integration**: Sync with Google Maps for retrieving geographical data, including locations, distances, and travel routes.



3 Participants and Stakeholders

Jonathan Ahlström, Ossian Gewert, Jacob Jönsson, Simon Persson, André Roxhage and Felix Sundholm.

3.1 Stakeholders

- Competitors like Momondo and Flight Scanner.
- Travel agencies providing data partnerships.
- End users (travelers) providing feedback.
- Product management and development teams.
- Airline companies indirectly benefitting from bookings.
- **Non-obvious Actors**: Support department (Customer Experience)

4 Planned activities

4.1 Project Timeline

Activity	**Deliverable**	**Start Date**	**End Date**	**Estimated Hours**	**Responsible Members**
Finalize project mission draft	Project Mission v1	Jan 20, 2025	Jan 22, 2025	6 hours	All team members
Revise project mission	Project Mission v2	Jan 27, 2025	Jan 28, 2025	6 hours	PM, SM, TM
Develop first iteration	Release R1	Jan 29, 2025	Feb 2, 2025	14 hours	All members
Conduct validation planning	Validation Checklist	Feb 10, 2025	Feb 14, 2025	5 hours	QM, VM
Continue development	Release R2	Feb 3, 2025	Feb 16, 2025	19 hours	All members
Perform validations and report	Validation Report	Feb 10, 2025	Feb 20, 2025	10 hours	All members, with QM/VM lead
Final iteration	Release R3	Feb 17, 2025	Mar 1, 2025	20 hours	All members
Prepare presentation	Conference Presentation	Feb 28, 2025	Mar 2, 2025	5 hours	EM, SM
Prepare discussant questions	Discussant Questions	Mar 1, 2025	Mar 3, 2025	3 hours	All members

Table 1: Project Timeline

5 Responsibilities

- **Project Manager**: Felix Sundholm
- **Stakeholder Manager**: Ossian Gewert
- **Elicitation Manager**: André Roxhage
- **Quality Requirements Manager**: Simon Jacobsson Persson
- **Data Reqirements Manager**: Jacob Jönsson
- **Validation Manager**: Jonathan Ahlström

Project Mission v2 - Immune
Group 4 Delta

Emelie Tingberg, Hanna Rosenberg, Hugo Nilsson
Johan Hummel, Victor Sannicolo, Victor Fredriksson

Table of contents

1. The product

1.1. Product name

1.2. Background

Tracking your vaccination today is somewhat of a hassle. It's hard to get an overview of what you've received, when you received it, when you'll need it again and what is required. There is a small kind of "vaccination passport" that you can use today, but it's easily lost. There would be several benefits from implementing a central system where vaccination centers can record the relevant info, connected directly to your personal ID.

There exists a national vaccine register, which is used to follow up effects of national vaccine programmes as well as Covid-19 vaccination.[1] However, creating a new separate system for additional vaccines such as travel would provide benefits in keeping track of individual immunization. Right now, private individuals can receive vaccinations through both private and public healthcare providers, all with completely separate systems.

In this project, it is assumed that the Swedish eHealth Agency has appointed the task of requirements engineering for such a system through a tender process. Therefore, that agency is the main customer of the system.

1.3. Purpose

The purpose of Immune is to offer a nationwide system for registering vaccines and making it easier for individuals to keep track of their previous vaccinations. The product will enable medical staff to register the vaccines of patients at the time of the vaccination, in the Immune application. The patient will be able to see their own previous vaccinations in the Immune application. There will also be a feature providing vaccine recommendations for travel to different countries. To make it easier for the clients to find vaccine centrals, the Immune application will provide a map and list over all vaccinations central that provide the specific vaccine the client is looking for, in the nearby area. For healthcare providers, Immune offers a possibility to gather statistics about their vaccination business, and make themselves visible in our system to attract clients.

1.4. Goals

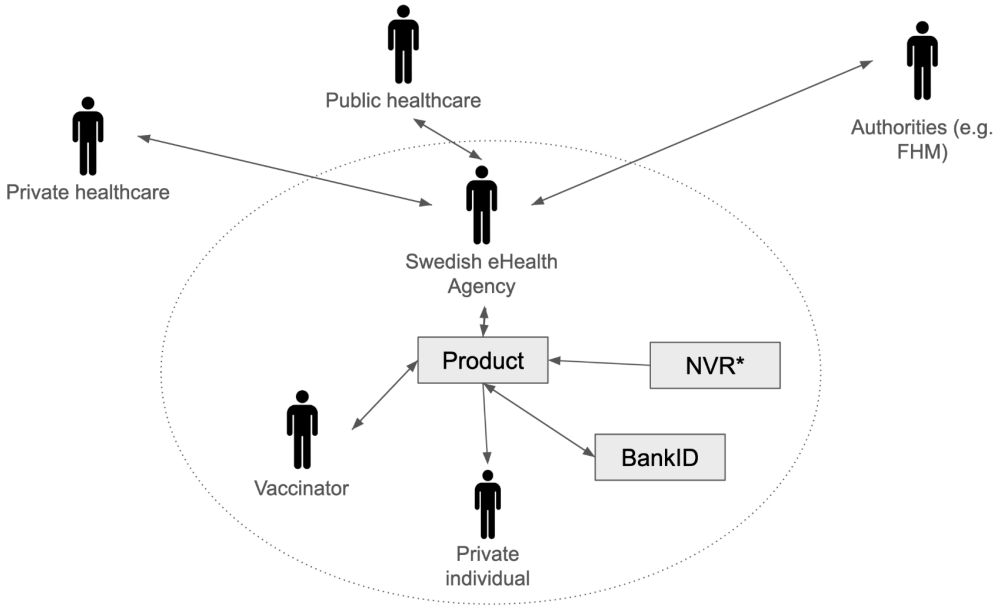
- Gather all information about what vaccines an individual has received in one place, visible for the individual and (with the individual's consent) its caregivers.

[1] https://www.folkhalsomyndigheten.se/smittskydd-beredskap/vaccinationer/nationella-vaccinationsregistret/

- Provide a nationwide registry for the Swedish eHealthagency from which it can draw statistics for other agencies.
- Provide a service where recommendations regarding vaccines are easily accessible in one place. For example recommendations regarding what vaccines are required for a trip abroad or recommendations in emergencies, like the covid-pandemic.

2. Product context diagram

This section gives an overview of the actors with which the product will interact. The inner domain contains the stakeholders that will be in direct contact with the product, which is the private individuals using the application to manage their vaccines, the vaccinator who registers the vaccine and the Swedish eHealth Agency. The Swedish eHealth Agency will administer the product and use it to update recommendations.



*NVR = Nationella vaccinationsregistret

3. Participants and external stakeholders

The participants are the Swedish eHealth Agency (customer) and the development team (with roles assigned according to section 5). The main external stakeholders are depicted in the context diagram and are, along with other external stakeholders not included in the diagram, explained below:

3.1. Private Individuals

- Primary users of the Immune application.
- These individuals will use the app to track their vaccinations, view recommendations, and locate nearby vaccination centers.

3.2. Healthcare Providers (public and private)

- Includes vaccination centers and clinics that register patients' vaccination details in the system.
- They will also use the platform to attract clients and gather business statistics.

3.3. Swedish eHealth Agency (eHälsomyndigheten)

- Responsible for nationwide health data and statistics.
- The agency will use Immune as a centralized system for vaccination records and to extract statistics for public health planning and policy-making.

3.4. Other authorities (mainly Folkhälsomyndigheten)

- Organizations responsible for health guidelines and vaccination campaigns, such as Folkhälsomyndigheten.
- They will rely on aggregated data from the system to inform vaccination strategies and respond to emergencies.
- Regulatory authorities overseeing data privacy, healthcare regulations, GDPR compliance etc.

3.5. Travel Agencies (Optional stakeholder depending on scope)

- May use the system indirectly to provide vaccination recommendations to travelers.

3.6. IT Infrastructure Providers

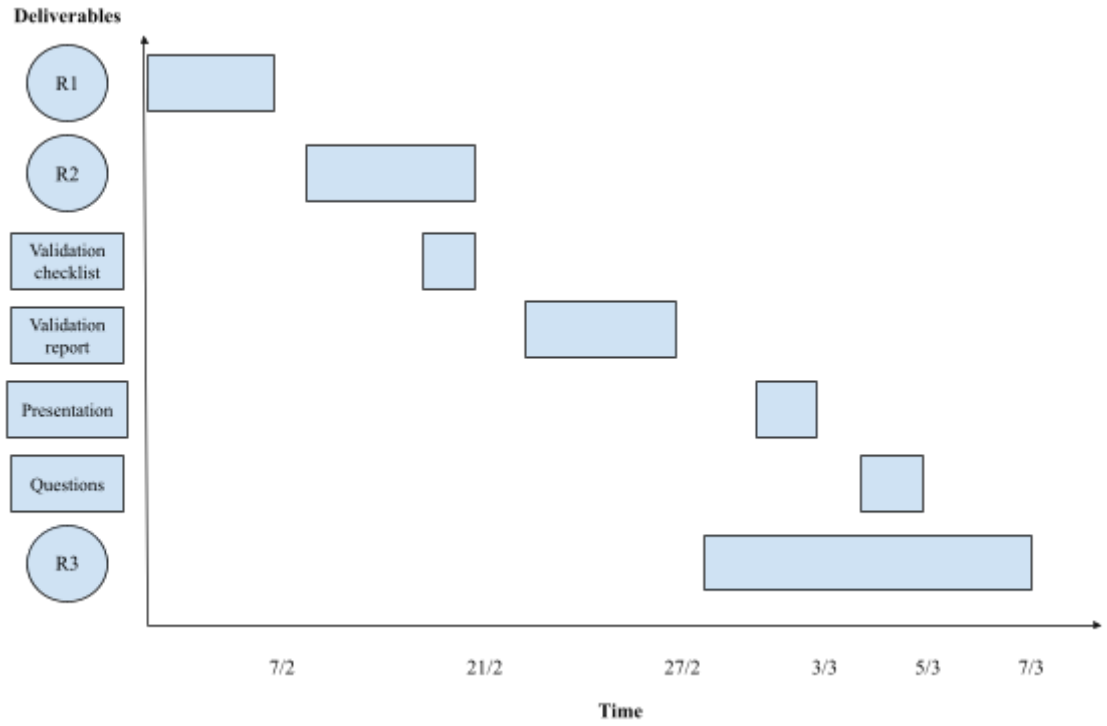
- Providers of the backend infrastructure and cloud services supporting the application.

3.7. Others

- Pharmaceutical companies who produce and sell vaccines.

4. Planned activities

4.1. Gantt schema



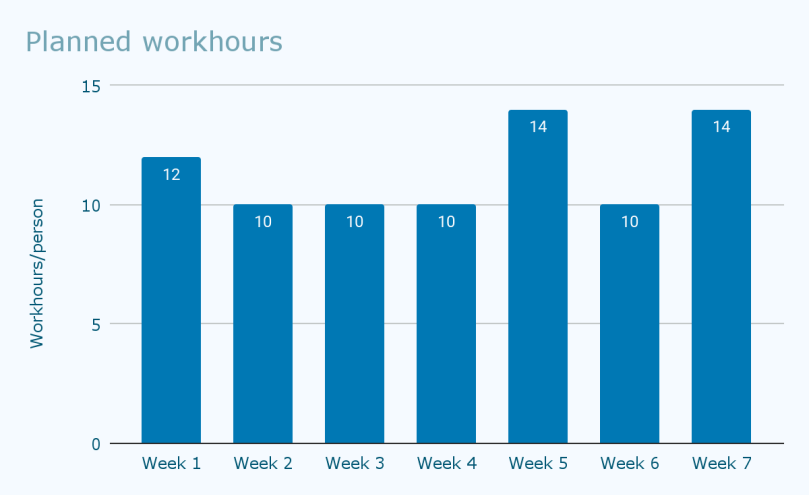
Deadlines for project deliverables:

R1 - 9/2
R2 - 23/2
Validation checklist - 23/2
Validation report - 27/2
Presentation - 3/3
Questions - 5/3
R3 - 9/3

As seen in the Gantt schema, the deliverables with deadlines on Sundays are scheduled to be done on Fridays. During the elicitation process we will conduct interviews with some external stakeholders, such as a doctor, nurse and private individuals.

4.2. Timeplan

Week	Workhours/person
Week 1	12
Week 2	10
Week 3	10
Week 4	10
Week 5	14
Week 6	10
Week 7	14
Total	**80**



5. Responsibilities

Everyone will try to meet up and work together with the project. If someone is not available to join, they will do their work at another time of their choosing.

PM Project, Process, Prioritization & Release Manager: Victor Sannicolo
SM Stakeholder Manager: Hugo Nilsson
TM Tools, Documents, Experiences & Version Manager: Hanna Rosenberg
EM Elicitation & Prototyping Manager: Emelie Tingberg
QM Quality Requirements Manager: Viktor Fredriksson
DM Data Requirements Manager: Viktor Fredriksson
VM Validation Manager: Johan Hummel