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BUSINESS CASE

TIN24F, SWL Practice project 2025/2026

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Project: BaSyx DPP API

Clients: Rentschler Markus, Pawel Wojcik

Team 6:

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CHANGE HISTORY

Version	Date	Author	Comment
1.0	26.09.2025	Nataliia Chubak	Initial the BC
1.1	27.09.2025	Nataliia Chubak	Update BC and financial calculation

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DESCRIPTION AND GOALS

The goal of the project is to develop a two-sided (Backend-Frontend) implementation of the REST-Api digital product passport in accordance with the DIN standard in the BaSyx framework to ensure standardized lifecycle management and DPP search. The relevance of this project lies in improving the DPP search capability and increasing service efficiency. By providing a ready-made backend and frontend product for DIN EN 18222 standards, the project enables companies to implement the necessary digital solutions more quickly.

EXPECTED WORKING HOURS

Each member of the project has 180 hours available to reach the goal.

In the following you can see the rough time distribution:

	Nataliia Chubak	*Magnus Lörcher*	*Luca Schmoll*	*Fabian Steiß*	*Noah Becker*	*Manuel Lutz*	*Felix Schulz*
Product Analysis	20	20	20	0	0	0	0
Customer dialogue	10	5	5	0	0	0	0
Leading project	40	10	10	0	0	0	0
Research	15	15	15	15	15	15	15
Documentation	15	0	0	30	0	15	0
Coding	45	90	90	95	115	75	115
Testing	0	0	0	0	0	30	5
Meetings	15	15	15	15	15	15	15
GitHub management	5	10	10	10	20	15	15
Presentation	15	15	15	15	15	15	15
Total	180	180	180	180	180	180	180

Table 1. Expected working hours

TIMELINE

The time frame for this project is 11 weeks (26.09.2025 – 31.05.2026). However, from 1.12.2025 – 8.03.2026 the team members will work in their companies.

The project went through the following milestones:

- Planning and requirements analysis 1-6 weeks:
- Design and architecture 7-11 weeks.

See Figure 1 for more details.

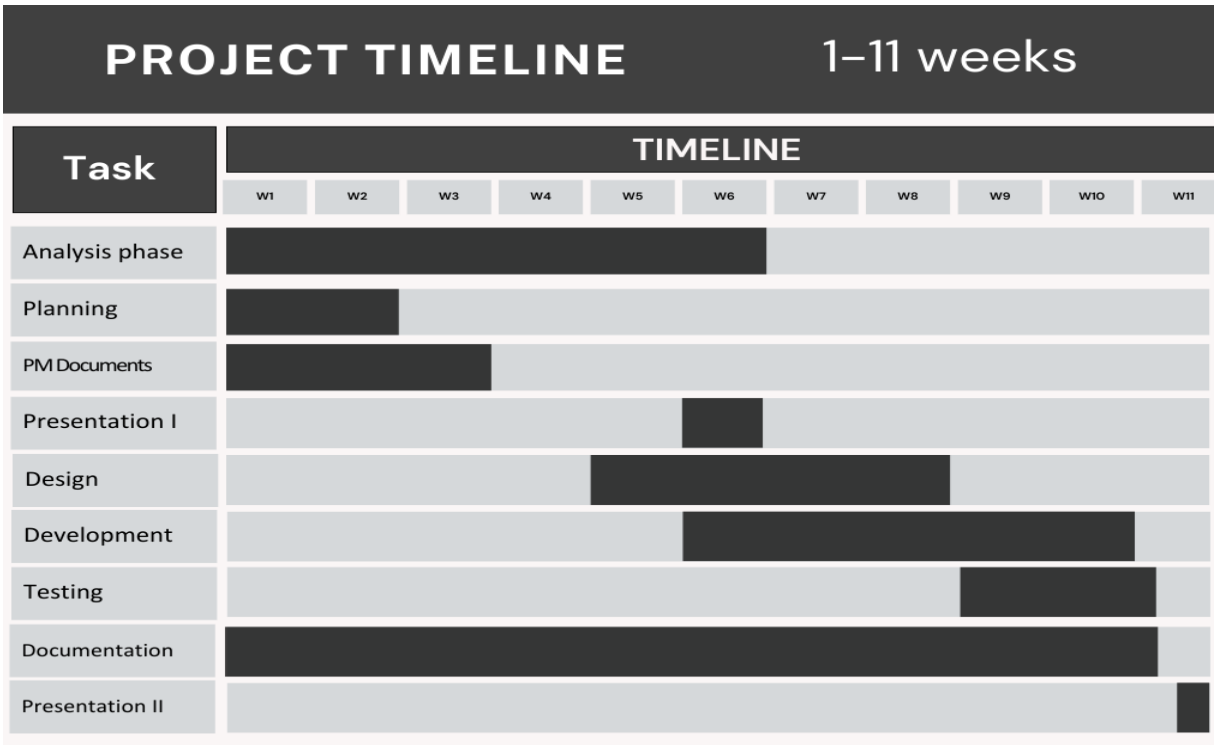

Figure 1. Project timeline

COST CALCULATION

Calculation of the development cost estimate. The cost estimate is a comprehensive plan of all the company´s expenses for the planned period of production and financial activity.

An investor´s cost estimate includes the following main expenses:

- Base salary;
- Rent;
- Components;
- Electricity;
- Risk.

Position	Salary €/h	Cost total in €
Project Manager	35	6300
Productmanager	32	5760
Productmanager	32	5760
Testmanager	30	5400
Systemarchitekt	30	5400
Technical writer	28	5040
UI-Designer	28	5040
Total	215	38 700

Table 2. Salary calculation based on hourly wages

Other costs

	Cost total in € (11 weeks)
Consumables (paper pads, black toner, ballpoint pens)	200
Electricity	2400
Rental costs	6750
Internet services and communication costs	135
Software licenses	10 000
Training	1000
Total	10 485

Table 3. Other costs calculation

The estimated cost of developing a software product is therefore *59 185 €.*

RISKS

When analysing the potential risks, the team identified the following:

Risks associated with a sudden decline in the project's operating capacity.

Communication risks (insufficient communication between team members). To solve this problem, it was decided to hold regular meetings and use the GitHub service.

Technical risks (sudden failure of the Internet connection or power supply for an extended period of time, unplanned unavailability of equipment).

Risk of ignoring risks (insufficiently realistic assessment of scenarios by each member of the test team). To solve this problem, a list of possible risks and possible solutions was created.

Schedule risk. To address this issue, a detailed project work plan was created and progress was systematically monitored.

Budget risks. Exceeding the planned budget due to additional costs.

OFFER

This is a commercial offer for the implementation of the DIN EN 18222 standard (Digital Product Passport, DPP) in the Eclipse BaSyx framework. The details and the offer sum of 59 185 € are illustrated in following table. It shows the total costs of the project along with the profit margin of ~ 30 % and the offer.

Type of costs	Costs, €
Salary costs	38700
Other costs	10485
Total costs	49185
Profit of 30 %	14755,5
Offer sum	63.940,5

The total offer sum is ***63.940,5 €.***