
Gruppe 21

**Personal Banking and Budgeting Program
Vision Document**

Version <1.0>

Personal Banking and Budgeting Program	Version: 0.3
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Revision History

Date	Version	Description	Author
13.02.23	0.1	No product criteria or goals set, only document formatting.	Trygve Jørgensen, Ingar Asheim, Ari Maman, Lars Mikkil Nilsen
01.03.23	0.2	Finished all sections except 1.4	Trygve Jørgensen, Ingar Asheim, Ari Maman, Lars Mikkil Nilsen
02.03.23	0.3	Completed first draft of vision document	Ingar Asheim

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Vision document

1. Introduction

1.1 Purpose and scope

This vision document is for the project in IDATT1002, and is going to describe all the parties involved, what the project revolves around, what the purpose of this software is going to be, and discuss its functionality.

1.2 Definitions, Acronyms, and Abbreviations

GUI	Graphical User Interface
DevOps	A methodology in the software development and IT industry
HCI	Human Computer Interaction
Scrum	A software development methodology
JRE	Java Runtime Environment
JavaFX	A framework for developing GUIs in Java
Java 17	The 2017 version of the Java programming language

1.3 References

Oracle. (n.d.). Oracle JDK 17 Certified System Configurations. Retrieved from <https://www.oracle.com/java/technologies/javase/products-doc-jdk17certconfig.html>

Java. (n.d.). What are the system requirements for Java? Retrieved from <https://www.java.com/en/download/help/sysreq.html>

Janssen, J. (2021) It's time to move your applications to Java 17. Here's why—and how. Retrieved from <https://blogs.oracle.com/javamagazine/post/its-time-to-move-your-applications-to-java-17-heres-why-and-heres-how>

1.4 Overview

The vision document first outlines the goals for the project. It then provides information about the stakeholders and their requirements and obligations. Finally, it shows an overview of the product's features and requirements, as well as information regarding the development of the application.

2. Project goals

2.1 Impact goals

- Improve customer's quality of life
- Allow the customer to be more confident in financial decisions
- Help the customer grow his business venture

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2.2 Result goals

- A financial management system for personal and business finance
- Allows the user to manage finances by month
- Allows the user to manage finances for personal and business projects
- The system shall be finished by 28.04.2023
- The system will be free of charge

2.3 Process goals

- Gain experience in teamwork in software/product development
- Learn to use version control and DevOps systems for code management
- Learn how to use wireframes for use in HCI
- Learn how to use Scrum as a tool to effectively do software development
- Learn how to write proper documentation

3. Stakeholder and User Descriptions

3.1 Customer description

The customer base of this project is a sole person. This customer is a friend of one of the team members and has a carpentry business; where he makes and sells ornaments, decorations and furniture out of wood. With such a narrow user base, the product will be specialized and be more specific to the user's needs. The purpose of this product is to be a tool that can be used to keep track of multiple projects simultaneously while maintaining a budget and possibilities for accounting afterwards.

3.2 Stakeholder Summary

Name	Description	Responsibilities
Ingar Asheim	Developer & Documentation manager	As an experienced programmer, Asheim shall provide guidance during the programming phase of development.
Trygve Jørgensen	Developer, Scrum Master & Team lead	In addition to developing the program, Trygve will be responsible for keeping the team's progress on track and leading meetings, both during and outside of Scrum.
Ari Maman	Developer & customer stakeholder representative	Maman is the stakeholder representing the customer and shall communicate the needs of the customer to the development team and vice versa.

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Lars Mikkelsen	Developer & Meeting organizer	Lars will be responsible for arranging meetings, as well as helping to develop the program.
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3.3 User Summary

Name	Description	Role under development	Stakeholder
Tormod Malmin	Customer and end user	Communicating wanted features and testing the product.	Ari Maman

3.4 User Environment

The user works from home and creates his products in the garage. How much time that is spent on a project varies based on the complexity of the product. One task cycle is going to be either a month or the time it takes for each project. This application will be on desktop, and the customer has communicated that he possesses a computer.

3.5 Key Stakeholder or User Needs

Need	Priority	Concerns	Current Solution	Proposed Solutions
Register a project	High		None	Creating a project is an isolated process where several fields can be inputted
Get an overview of project backlog	High			Create a slideshow or otherwise visually pleasing interface to get an overview.
Get a monthly update on financials	Medium			Table showing income and expenses

4. Product Overview

4.1 Product Perspective

This product is a new and self-contained system.

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Microsoft Excel is a commonly used program for financial management. As a general-purpose spreadsheet software, Excel offers a wide range of functionalities, some of which may be extraneous to financial management. Owing to the intricate nature of the software, users may encounter a steep learning curve. Users also need to create their own formulas, graphs, and tables. Conversely, this program is preconfigured with essential functions for financial management, making it much easier for users to get started.

4.2 Summary of Capabilities

Table 4-1 Personal Banking and Budgeting Program

Customer Benefit	Supporting Features
Customer can quickly get a comprehensive overview of his finances	GUI design will show income and expenses
Customer will have an easier time making financial decisions	The system will show income and expenses, and calculate the difference between them
Customer will be able to manage project-level expenses	The system will have the ability to create budgeting and accounting for specific projects

4.3 Assumptions and Dependencies

The program will be written in Java 17, and the GUI will be made in JavaFX. If these become unavailable, a new programming language and graphics framework will have to be chosen, which could impact system requirements, and certain features might become impossible to implement.

5. Product Features

5.1 Budgeting

The user will have the ability to plan their budget for each month by inserting planned income and expenses into and overview. Each income and expense will have a date, description, category and price.

5.2 Accounting

Accounting is functionally identical to budgeting but allows the user to quickly track what parts of the budget have taken place, as well as tracking unexpected income/expenses that might occur.

5.3 Personal and work categorization

When either budgeting or accounting, it is also defined whether it's personal or work related. In addition, the overview also allows for viewing the total of either budgeting or accounting, where both the personal and work-related expenses and income are displayed simultaneously.

5.4 Project planning

Where several expenses are related to the same project and or the completion date is far out or

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unknown, planning a project maximizes organization. A project itself has its own name, general description, category, date and notes related to it and can therefore be defined as any abstract concept. Crucially, each project also has its own list of each earnings and expenditure, therefore allowing budgeting of the project itself.

5.5 Project slideshow

The projects slideshow allows the user to neatly display all the relevant information of each project and quickly go change between them. This allows for brainstorming eventual projects and clearly displaying differences between them.

5.6 Automatic saving of product state

As this program runs locally and is considerably lightweight, autosaving the program state will occur every time a change is executed. Since every change is saved, the user should never unexpectedly lose information.

6. Constraints

The GUI will be made with JavaFX, so its design is constrained by that framework's capabilities.

7. Precedence and Priority

Based on the features discussed above on product features, the priorities will be listed as follows:

- Project planning
- Project slideshow
- Automatic saving of product state
- Accounting
- Budgeting
- Personal and work categorization

Priority is to implement functionality for management of individual products and projects. If this feature is completed, functionality for managing monthly finances will be implemented.

8. Other Product Requirements

8.1 System Requirements

The program will be written in Java 17, so both the developers and users will need operating systems compatible with this version. According to Oracle (n.d.), the certified system configurations for Java 17 include Windows 10 (64-bit), macOS 11.x (Big Sur) and 10.15.x (Catalina), Oracle Linux 8.x (64-bit), Red Hat Enterprise Linux 8.x (64-bit), SUSE Linux Enterprise Server 15 SP2+ (64-bit), Ubuntu Linux 20.04 LTS, 18.04 LTS, and 16.04 LTS (64-bit) (Oracle, n.d.). It might be possible to run Java 17 applications on older operating systems if they meet system requirements (Java, n.d.), however it might pose security risks (Janssen, 2021). The end user will need to have a JRE compatible with Java 17 installed to be able to run the program.

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Java (n.d.) lists the following hardware and software requirements:

- RAM: 128 MB
- Disk space: 124 MB for JRE; 2 MB for Java Update
- Processor: Minimum Pentium 2 266 MHz processor
- Browsers: Internet Explorer 9 and above, Microsoft Edge, Firefox, Chrome

These requirements should be met by almost any modern computer available to a private consumer. The application requires a monitor, mouse, and keyboard.

8.2 Performance Requirements

The software does not retrieve or send any information to a server, because of this the application should be performant to the point where load times and actions will be experienced instantaneous to the user. File handling needs to be robust enough to avoid corruption of saved data. Tech support will not be available, and there will be no product updates, so it must be fully functional when delivered.