

1. Version History

Version	Date	Author(s)	Changes	State
Ov	01-03-2024	IT Solutions	Implementing the template and brainstorming	Draft
1v	04-03-2024	IT Solutions	Finalizing the draft	Pre-final
2v	08-03-2024	IT Solutions	- Added document version history Added a project leader The fifth problem is the main problem and put 1/2/3/4 as a sub-problem to it Deliverables will be source code, documentation, - Give specification (document) for the hardware part of the scanners Fixed the time frames in the Gantt Chart Edited text.	Final

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2. Project assignment

2.1 Client

Media Bazaar, an emerging retail enterprise specializing in hardware and electronics, currently maintains a solitary retail outlet accompanied by a storage facility. The organization is actively pursuing expansion strategies to establish additional storefronts in various cities within the Netherlands, focusing on a broad assortment of media and electronics merchandise.

Media Bazaar Contacts:

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2.2 IT Solutions

IT Solutions is an innovative startup specializing in providing software solutions, dedicated to crafting transformative software applications designed to bolster the performance and success of both enterprises and individuals. The organizational structure of our team is arranged as follows:

Name	Company	Abbreviation	Role and functions
Daniel Gelov	IT Solutions	DG	Frontend Developer
Ivaylo Chevarganov (Project Leader)	IT Solutions	IC	Backend Developer
Ivaylo Slavov	IT Solutions	IS	Frontend Developer
Martin Simeonov	IT Solutions	GO	Backend Developer

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2.3 Current Situation

The client is lacking digitalization to manage the company. Employee management is operated with excel tables. The similar thing is happening with the inventory management, everything is administered in excel. The information between the departments is sent via emails.

1.4 Problem Statement

The following aspects are found to be hampering its operational efficiency:

- The manual management of inventory, in both the store and warehouse, results in inaccurate inventory and sales records.
- The company uses a paper-based employee planner which results in inefficient employee shift planning, a lack of organized data storage for employee details, roles, and schedules.
- The company lacks an adequate system for communication.

3. Project Goals

The main goal of this project is to develop and deploy a system that supports inventory management and employee management for Media Bazaar. This goal will be tackled in two phases, each with its own objectives:

3.1 Initial Phase Goals

This section refers to the agreements for Week 1 to 6. In this stage of the project, a comprehensive administrative system will be developed to efficiently manage product management aspect of the shop, including:

- Deployment of an inventory management system.
- Replenishment requests.
- Management of a product by categories, sub-categories, and stock.
- Development of check-in/check-out functionality for products in both the store and the warehouse.
- Addition of new departments to facilitate the organizational product and employee aspects.

3.2 Subsequential Phase Goals

This section refers to the agreements for Weeks 6 to 18. In this stage of the project, a comprehensive administrative system will be developed to efficiently manage the product management aspect of the shop, including:

1. Employee Management / Portal

- Development of a comprehensive (personal)employee dashboard in the web application for employees to communicate with the company (e.g.: sick leave), and plan shift scheduling.

2. Human Resources Management:

- Storage of relevant employee data.
- Ability to add and remove employees from the system.
- Integration with employee and product management for department-specific tasks.
- Ability to assign and view work shifts globally (for the entire store).
- Systematic access to role specific responsibilities.

4. Project Organisation

4.1 Strategy

For the first phase of the project, where the main goal is to develop the agreed minimum viable product (MVP), the Waterfall Methodology will be followed. This will allow a quick delivery of the core functionalities needed by our client and then iterate to provide additional features and enhancements as needed.

In the following phase, the system's expansion will be planned along with the client and its development will follow sprints, in accordance with the Agile Framework.

4.2 Constraints

3.2.1 Client

- The deadline for the intermediate version of the project is the 21st of February 2024. The intermediate version includes the product management system.
- The deadline for the final version of the project is the 14th of June 2024. The final version includes an employee's portal, an employee's management system, a scheduling system and a warehouse replenishment requests system.

3.2.2 Technical

- The database will be hosted on a SQL Server on hardware provided by the client.
- Frontend will be done using Windows Forms for the windows application and ASP.NET Core Razor pages for the webserver.
- HTML, CSS, and Bootstrap for the website.
- The backend will be shared between both apps and will be made using C#.

4.3 Deliverables

1. First 6 weeks:

- · Source code.
- A test plan and URS document.
- UML-class diagram document.
- A desktop application for inventory management for the store.

2. The rest 12 weeks:

- Source code.
- Updated desktop application.
- A web application that acts as a portal for the employees.
- · A test plan and URS document.
- · Updated UML-class diagram document.

4.4 Non-Deliverables

- Training materials or documentation that are not directly related to the final delivery product, such as planning schedules and role assignments.

5. Phasing

5.1 Phases

1. Planning Phase:

- **Problem Analysis (5h):** Identify the problem or need that the project aims to address. Analyze the current situation, gather requirements, and define the project's objectives.
- Commencement (2h): Hold a meeting to ensure that all stakeholders are on the same page regarding the project's scope, goals, and initial plan.
- **Scope Definition (2h):** Define the project's scope, deliverables, and acceptance criteria.

2. Project management:

- **Progress Monitoring (16h):** Continuously monitor the progress of the project, track work completed, and adjust as needed to stay on track.

3. Execution Phase:

- **Development (180h):** Execute the project plan and develop software.
 - 75h for development of a web application.

- o 75h for development of a desktop application.
- o 30h for development of a database.

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- Quality Assurance (16h): Implement quality control processes and ensure that the project meets the defined quality standards.
- **Communication (8h):** Maintain open communication channels with stakeholders and team members.

4. Testing Phase:

- **Testing and Quality Assurance (10h):** Conduct final testing and validation to ensure that all project requirements have been met.
- **Documentation (10h):** Prepare final project documentation.

5. Milestone Closure Phase:

- **Presentation (30m):** Demonstrates the completed work to stakeholders and gathers feedback.
- **Progress Agreement (30m):** Ensure the criteria for all stakeholders are met in regards of the project and product developed.

Time Management & Gantt Chart Organisation

