**PRJ-CB04**

GROUP 3



**Members :**

Joran van de Moosdjik (400000) - [j.vandemoosdijk@student.fontys.nl](file:///C:\Users\shanessa\OneDrive%20-%20Office%20365%20Fontys\Semester%202%20-%20Software\PRJ\s-cb04-s2-g3-prj\j.vandemoosdijk@student.fontys.nl)

Jordy Rutjens (3946975) - [j.rutjens@student.fontys.nl](file:///C:\Users\shanessa\OneDrive%20-%20Office%20365%20Fontys\Semester%202%20-%20Software\PRJ\s-cb04-s2-g3-prj\j.rutjens@student.fontys.nl)

Shanessa Kostaman (450080) - [genoveva.shanessakostaman@student.fontys.nl](file:///C:\Users\shanessa\OneDrive%20-%20Office%20365%20Fontys\Semester%202%20-%20Software\PRJ\s-cb04-s2-g3-prj\genoveva.shanessakostaman@student.fontys.nl)

Tobias Agyasta Halomoan (4252861) - [t.halomoan@student.fontys.nl](file:///C:\Users\shanessa\OneDrive%20-%20Office%20365%20Fontys\Semester%202%20-%20Software\PRJ\s-cb04-s2-g3-prj\t.halomoan@student.fontys.nl)

**Tutors :**

Kalina Petrova (as a mentor) - [k.petrova@fontys.nl](file:///C:\Users\shanessa\OneDrive%20-%20Office%20365%20Fontys\Semester%202%20-%20Software\PRJ\s-cb04-s2-g3-prj\k.petrova@fontys.nl)

Frank de Lepper (as a client) - [f.delepper@fontys.nl](file:///C:\Users\shanessa\OneDrive%20-%20Office%20365%20Fontys\Semester%202%20-%20Software\PRJ\s-cb04-s2-g3-prj\f.delepper@fontys.nl)

**Fontys University of Applied Sciences**

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# Introduction

This project plan is an outline of the development plan regarding the management system to be delivered to “Media Bazaar”. It consists of:

* **Problem:** Contains the description regarding the circumstances that brought the solution.
* **Deliverables and Non-Deliverables:** Contains the list of finished products that will be delivered and will not be delivered during and after the development.
* **Constraints:** Contains the current scope and boundaries of development.
* **Phasing:** Contains description of the decided phases of development as well as the planned milestones throughout.

# Client

Our client just opens their first electronics shop “Media Bazaar” in Eindhoven. It’s funded by the parent company called “Jupiter”. The client would be represented by our class mentor, Mr. Frank de Lepper ([*f.delepper@fontys.nl*](f.delepper@fontys.nl)). All of our questions about company structure and client preferences would be directed towards him.

# Team

The client has hired the services of a software developer team in order to solve their problem. This team will be fully represented by our group, with the main representation to the team being Shanessa Kostaman ([*genoveva.shanessakostaman@student.fontys.nl*](genoveva.shanessakostaman@student.fontys.nl)). The other team members are: Joran van de Moosdijk ([*j.vandemoosdijk@student.fontys.nl*](file:///C:\Users\shanessa\OneDrive%20-%20Office%20365%20Fontys\Semester%202%20-%20Software\PRJ\s-cb04-s2-g3-prj\j.vandemoosdijk@student.fontys.nl)), Jordy Rutjens ([*j.rutjens@student.fontys.nl*](file:///C:\Users\shanessa\OneDrive%20-%20Office%20365%20Fontys\Semester%202%20-%20Software\PRJ\s-cb04-s2-g3-prj\j.rutjens@student.fontys.nl)), Tobias Agyasta Halomoan ([*t.halomoan@student.fontys.nl*](file:///C:\Users\shanessa\OneDrive%20-%20Office%20365%20Fontys\Semester%202%20-%20Software\PRJ\s-cb04-s2-g3-prj\t.halomoan@student.fontys.nl)).

The group will also be represented by our mentor, Mrs. Kalina Petrova ([*k.petrova@fontys.nl*](k.petrova@fontys.nl)), as the manager that oversees the development process. Through her we will ask for further feedback and input with regards to the process.

# Current Situation

Media Bazaar consists of the shop floor - where the multiple departments are situated and daily sales operations occur – and the warehouse floor - where products are stored and inventoried.

The company operates within a flat hierarchy consisting of 5 main roles:

|  |  |  |
| --- | --- | --- |
| **ID** | **End Users** | **Information** |
| **EU-1** | Administrator | Responsible for the managing human resources. Their job consists of hiring and firing employees, checking and updating employee background information, and creating or removing store departments. |
| **EU-2** | Floor Manager | Responsible for managing the shop employees, their job consists of assigning work shifts to employees as well as assessing store product inventory for re-stocking. |
| **EU-3** | Warehouse Manager | Responsible for the management of the warehouse and its inventory. Their job consists of adding/removing products and assessing stock requests with the inventory. |
| **EU-4** | Employees | Responsible for the operations of the shopfront, their job consists of running the shop floor during opening hours. |
| **EU-5** | Warehouse Employee | Responsible for the operations of the warehouse, their job consists of tracking the inventory and moving products to the shop floor. |

Media Bazaar currently does not have an online infrastructure for their administrative operations. For the storing and updating of data, the company uses spreadsheet application Microsoft Excel.

# Problem Description

Due to its recency, the store is lacking in any online administrative capabilities to easily view and manage their resources (employees, stock, assets, etc.)

This is an essential feature that is needed for any store, since the proper understanding and managing of resources are keys to creating critical judgements and maximizing profits towards a healthily running store while Excel is a powerful tool to manipulate and view data, it may become very complicated and cumbersome to continuously update and receive various data in different sets. Also, it’s proficient use would require very specific training for each employee that may not be preferable for the company.

An online application would also be preferred as the system can be understood quickly and be interacted with more efficiently; also, it would benefit to have a safe, off-site backup of and access towards sensitive company information.

# Problem Solution

In order to solve this problem, we would create a software application that allows administrative actions on multiple aspects of the store, with each aspect connecting their functionalities and outputs with each other. These multiple aspects and actions may constitute the following:

1. Employee Administration (Assigning employee work hours, storing and updating employee information, and keeping track of work hours based on an employee’s respective contract/allotted work hours.)
2. Stock Administration (Keeping track of products in stock, storing and updating product specifications, receiving stock requests from shop floor to be completed by the warehouse floor)
3. Department Administration (Assigning managers and employees to different departments, assigning and keeping track of different products in different departments)

Having all of these functions packed into a single application would ensure quick and efficient management of the multiple operations taking place daily. We also take the user experience into consideration so all employees will quickly grasp the application’s functions. By connecting the application to a database, the past as well as the newly acquired data from Excel can be easily transferred to the application with ease.

# Deliverables

Two types of deliverables will be provided to the client: Documentations and Executables. The delivered documentations will be provided mostly as reference in the situation that the client decides to upscale the final build of our application even further. Delivered executables will be the main solutions that were based on the client’s requests.

**Delivered documentations will be:**

* **Agendas:** We’re keeping track of our meetings and we write down points of interest. This is to make sure we don’t forget any information.
* **Charts:** We’re keeping track of our progress and show it to the client how far is the progress.
* **Project Plan:** This is how we describe how we are going to execute our project.
* **URS (User Requirements Specifications):** This will give an overview on the operations that the software can achieve with the user’s technical capabilities taken in account.

**Delivered executables will be:**

* **Desktop Application:** The program will be delivered through Github, in the form of a Windows Forms application consisting of the exe file (the one on the debug file). A final version will be tagged in the master branch of our repository.
* **Application Betas:** As we complete each milestone in each iteration, a beta build of the application will be provided to the client for further input and clarity.
* **Website Application**: The HTML deliverables will also be delivered to the client.
* **Database:** A database will be provided to the client to maintain and update data to the application easily.

# Non-deliverables

**Non-deliverables for the project will be:**

* **Webhosting server:** For the website, we will not provide a hosting server as we believe that these should be under the client’s decision.
* **Testing scripts and data:** We will not provide scripts and documents regarding to testing, as we believe that it is independent from the operations and support of final full build.
* **Quality assurance documents:** Similar to the testing data, we believe documents regarding to testing does not affect the final build whatsoever.

# Constraints

We will only operate from one store, as of right now. We might expand later as the project develops. Because of this focus on one location, we believe that we would be able to efficiently proceed with a focused goal.

As for limitations regarding time, money and quality:

We are focused on realizing this project within a span of 18 weeks. Quality controls will be made to assure our high standard through proper communication with client, continuous communication to and feedback from our peers and mentors. As for money, we are capable to stay within budget, by working efficiently. We have acquired the software development programs needed for the project with licenses from Fontys.

Miscommunications may arise during development and may hamper productivity. Therefore, we expect to communicate as often as possible online as to decrease the possibilities of such predicaments from happening.

# Phasing

As per our phases for each development milestone, it consists of:

|  |  |  |
| --- | --- | --- |
| **First phase** | Planning Phase | The preparing and specifying of the application’s functionalities, scale, and design. |
| **Second phase** | Implementation Phase | The development of the application based upon the agreed/specified architecture. |
| **Third Phase** | Testing Phase | The testing of each of the application’s implemented functionality by using tests and conditions to further improve the program. |

For our first 6 weeks, the work will be divided by the three mentioned phases as visualized in the Gannt chart below:

Chart, timeline, bar chart

Description automatically generated

Further updates on the chart and the work division will be added as time goes on.

Our project consists of three milestones to be achieved over the course of 18 weeks:

|  |  |  |
| --- | --- | --- |
| Milestone 1 | The implementation of the Employee Management system | Week 1 – 6 |
| Milestone 2 | The implementation of the Stock Management system | Week 7 – 12 |
| Milestone 3 | The implementation of Department Management system, website application, database, and integration of all parts into final build | Week 13 – 18 |

For each completed milestone, we will deliver the beta builds for the application. We would like the client to review and evaluate these builds for input and a go/no-go decision. Of course, we would deliver the product keeping the client’s expectations in mind, but there may be some features missing that the client may request. Hopefully, through these meetings we may receive valuable input for further improvement and continued development.