**Project Plan**

***<<Warehouse project>>***

*<<Warehouse & CO>>*

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| **Author : Bojidar Balabanov** |

#### Version history

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| **Version** | **Date** | **Author(s)** | **Changes** |
| 0.1 | 18.09.2020 | B.Balabanov | First draft |
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# Project assignment

## Context

A new warehouse is opening soon, and they want a product management system to be implemented. The employees need a system, which can help them in solving some problems. The first is that they need a way to keep track of the products in their system, which means they need to know the following things:

1. What are the names of the products?

2. What are their length, height, weight values?

3. What are their prices?

4. How many are there in stock?

5. How many were shipped?

6. When were they last restocked?

7. What product category do they fall under?

8. What is their location within the warehouse?

Secondly, they need a way to differentiate who is using the system, because currently there are three types of positions in the store- the “Manager” who has to have access to everything and should be the only one able to register new employees to the system, the “Shipping and Receiving Specialist” should be able to accept shipment requests, handle the restocking process and sending preparation tasks to the background workers the “Material Handlers”, who should be able to receive information about what they need to pack or move, when done they mark the task as complete and the product is rendered as “sold”.

## Goal of the project

A company owns a warehouse, and they want an administration system to be developed in order to keep track of the products they ship and receive. Currently there are three different roles in the warehouse which should be taken in mind when designing the application:

1. Manager- A person who has access to everything and is in a higher position than other employees
2. Shipping and receiving specialist (SR specialist)- A person who handles the process of accepting shipping requests, restocking, and notifying background workers about their tasks.
3. Material handler- A person who works in the background, for example doing a task received from a SR specialist or moving products around the warehouse.

The following list of requirements represents the features that the application should have:

* **FR-01: System should be able to store information about products**

*All of the following must be stored: Name of product, length, height, weight, price, number in stock, number shipped, last restock date, category, location in warehouse*

* **FR-02: All employees should be able to search through all products in stock**
* **FR-03: All employees should be able to search for a product with their chosen filters**
* **FR-04: SR specialists should be able to accept shipping requests**
* **FR-05: SR specialists should be able to restock a product**
* **FR-06: SR specialists should be able to register new products to the system**
* **FR-07: SR specialists should be able to send preparation tasks to material handlers**
* **FR-08: Material handlers should be able to receive preparation tasks from SR specialists**
* **FR-09: Material handlers should be able to mark preparation tasks as complete, resulting in marking the product which was prepared as sold**
* **FR-10: Managers should be able to operate in all fields of the program**
* **FR-11: Managers should be able to register new employees to the system**
* **FR-12: Managers should be able to remove employees from the system**
* **FR-13: Managers should be able to see the total amount of money earned in a given period**
* **FR-14: All employees should be able to log in**

## Scope and preconditions

|  |  |
| --- | --- |
| **Inside scope:** | **Outside scope:** |
| 1. Project plan | 1. Manual of the application |
| 1. Design document | 1. Dutch language support for the application |
| 1. Application | 1. Version of documentation in Dutch |
| 1. Test reports |

## Strategy

The methodology that is going to be used is Agile Scrum. It begins by a sprint planning phase, which is an event that has as purpose to define what can be delivered in the sprint and how that work will be achieved. Sprint planning is done in collaboration with the whole scrum team. In scrum, the sprint is a set period of time where all the work is done. However, before you can leap into action you have to set up the sprint. You need to decide on how long the time box is going to be, the sprint goal, and where you're going to start. The sprint planning session kicks off the sprint by setting the agenda and focus.

# Project organisation

## Stakeholders and team members

|  |  |  |
| --- | --- | --- |
| **Name** | **Role and functions** | **Availability** |
| *Bojidar Balabanov,*  434236@student.fontys.nl | *Project developer,*  *Product owner* | *During workdays after 09:00 am and before 06:00 pm* |
| *Onno Marsman,*  *o.marsman@fontys.nl* | *Teacher and mentor* | *Mondays and Tuesdays from 09:00 am to 04:00pm* |
| *Ruben Steins,*  *r.steins@fontys.nl* | *Teacher and mentor* | *Mondays, Tuesdays from 09:00 am to 04:00pm*  *Fridays from 12:00 noon to 4:00pm* |

## Communication

*Currently due to the COVID-19 most meetings with teachers will be held online in Microsoft Teams and sometimes meetings will take place at Fontys University.*

During each sprint at least one meeting with a teacher should be held during each sprint. After a meeting the project developer should write down what was discussed during the meeting in Feed Pulse.

# Activities and time plan

## Phases of the project

*Sprint 1 – Project planning (including initial product backlog with user stories.),first setup of Restful API for your individual track project (example 3 working GET operations), CI/CD environment initialization (setup your Git project repository in GitLab, and prepare it for Continuous integration).*

*Sprint 2 – Design document version 1 (including a justification for the front-end framework of choice), 1st prototype iteration (demonstrating frontend – backend connectivity with mock interfaces)*

*Sprint 3 – Design document version 2 (including a justification for the back-end system, quality assurance metrics), 2nd prototype iteration (demonstrating connectivity with backend database, including unit-tests)*

*Sprint 4 - Design document version 3 (including security related design decisions), 1st release version (demonstrating authentication/authorization integration) ,Report on how the OWASP criteria relate to application, Up-to-date product and sprint backlogs and burn-down charts*

*Sprint 5- Final design document 2nd release version (demonstrating a fully operational CI/CD pipeline), Up-to-date product and sprint backlogs and burn-down charts.*

*Sprint 6- Final report, Final release (Docker integration), Up-to-date product and sprint backlogs and burn-down charts.*

## Time plan and milestones

|  |  |  |  |
| --- | --- | --- | --- |
| **Phasing** | **Effort** | **Start date** | **Finish date** |
| 1. Sprint 1 |  | 01.09.2020 | 18.09.2020 |
| 1. Sprint 2 |  | 19.09.2020 | 09.10.2020 |
| 1. Sprint 3 |  | 10.10.2020 | 06.11.2020 |
| 1. Sprint 4 |  | 07.11.2020 | 27.11.2020 |
| 1. Sprint 5 |  | 28.11.2020 | 16.12.2020 |
| 1. Sprint 6 |  | 17.12.2020 | 22.01.2021 |

# Testing strategy

Automated tests are run to validate the code’s correctness and the behavior of the product. The test stage acts as a safety net that prevents easily reproducible bugs from reaching the end-users.

The responsibility of writing tests falls on the developer. The best way to write automated tests is to do so as we write new code in test-driven development.

Failure during the test stage exposes problems in code that developers didn’t foresee when writing the code. It’s essential for this stage to produce feedback to developers quickly, while the problem space is still fresh in their minds and they can maintain the state of flow.