OnlyBugs Inc.



Project Plan

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## Note: i1 and i2 is mentioned across this document- they stand for iteration 1 and iteration 2, the text after them concerns the first and second iteration of the project respectively

## Client Description

Our client is Ms. Sreedevi who will represent and who we can contact using email: s.thayyakatheraveendran@fontys.nl and weekly meetings.

Media Bazaar is a daughter company of Jupiter that is trying to open a shop in Eindhoven and for that they need an application which helps them with the overall management of the store but mainly for that of employee and stock.

## Team Introduction

Our team consists of 4 people who will be represented by Daniil Blagoev.  
you can contact him using email: [d.blagoev@student.fontys.nl](mailto:d.blagoev@student.fontys.nl) and weekly meetings.

Team: Daniil Blagoev, a student from Bulgarian origin.  
 Jakub Jelínek, a student from the Czech Republic.  
 Rositsa Nikolova, a student from Bulgarian origin.  
 Rens van den Elzen, a student from the Netherlands.

We are software engineering students in Fontys and we all have worked together on a different project before and all of us contributed something that helped get the project to a very respectable and well-functioning final version. We think that we can do even better with this project since we have acquired new skills and knowledge.

## Current situation

Parent company Jupiter wants to open a new shop called Media Bazaar and they prefer being well prepared before they open the shop. They feel that the biggest roadblock will be managing employees and their shifts. That is why they want an application that will allow them to manage their employees and their statistics, and a way to manage their inventory.

(i1) After having the application delivered, they want to have a web application in which the employees can login using their own credentials in order to view their schedule and make suggestions for their schedule. The suggestions are something along the lines of saying they prefer working on certain days.

(i2) After seeing the latest iteration of the project, the client now wants to be able to filter the products in stock. This is to make it easier to look for specific products for when the inventory becomes larger over time. The client also wants workers to receive an email with their login credentials so that they can change their password with the first login in the website. For the scheduling the client wants worker to be able to suggest up to two leave days per month from the website and the admin in the desktop application to approve it.

## Problem statement

The software solution focuses on two main problems: managing employees and keeping track of stock. The administration of the employees has the highest priority as the client requested. For the administration department the system is going to solve the problems with assigning work shifts, keeping track of attendance and adding and removing employees. The management department is currently not able to see an overview of the employees, stock, and detailed information about every employee, which is essential for every management team.

(i1) The employees cannot adjust their working shifts and edit their personal information at the moment, which can cause misunderstandings in the working process. There is also no way for sending requests from the sales department to the warehouse department which is very important for the proper functioning of the store. To summarize, the issues listed above can lead to misinformation, lack of coordination between the different departments, difficulties in the working processes and delays.

(i2) At the moment there is not a search function in the product interface. Along with that the products do not have barcodes and they can be created only with the predefined categories from the backend. On the website employees can see only the current month for now. Additionally, employees cannot request a leave request if needed. Currently, employees can login only with the credentials that admin set for them when adding them and they do not receive any email or message with these credentials, and they cannot change their password.

## Project goal

Our team aims at designing a user-friendly and easily extensible software system for managing employees and stock in the hardware store from scratch. The first release includes a desktop application with three types of users – Administrator, Manager and Worker. The user interface and functionalities are going to be different for every user. For administrators, the application is going to provide the ability to manage employees and schedule, for managers - useful statistics and overview of employees and for the workers - checking their own schedule.

(i1) In the second release a website for the workers is going to be created where they can login to see their own schedule. The desktop application is going to be extended. Functionalities for managing the products will be added. For managing the availability of the stock, we are going to create different user interfaces for the sales and warehouse departments. Employees in the sales department will be able to send request for stock, while the employees in the warehouse department should decide if the request can be approved. We are also going to show useful statistics regarding product requests in the manager view.

(i2) In the second iteration we are going to add barcodes for the products so in the future they can be scanned with mobile phone. We are also going to give the ability to the admin to add custom categories for the products. A search function for searching by product name, brand and category is going to be developed for admin and warehouse employees. New statistics for the distribution of products per category is also going to be added. For the warehouse employee view, we are also going to improve the user interface and show on the right side only the selected product. We are planning to design a company logo as well. For the website a function for seeing the past and next months is going to be created. When an admin adds a new worker (sales or warehouse department) an automatic email will be sent with the credentials for login into the website. At first login the employees should change their password. On the website employees should also be able to request a leave request up to 2 times per month where admin should approve it or decline it form the desktop application.

## Deliverables x non-deliverables

Our team will deliver an external deliverable, i.e. working system which solves the problems mentioned during our meeting interview, URS (User Requirements Specification) document which describes the business needs for what users require from the system and an internal deliverable such as user’s guide, i.e. how to use an app (e.g. user accounts).

Since our client was clear about his main concerns and priorities, we will focus on those. Priorities such as managing employees and managing stock. For first six weeks period we promised just employee management. (i1) Since this period passed, we managed to finish employee management so we can now concentrate on stock management.

During iteration one(i1), our team managed to make product and stock management work. We also updated URS and Project plan.

At the end of iteration two(i2), our team will deliver updated URS, Project plan and upgraded version of application and website with new features in area of stock management and product management.

We can promise a working solution (App) with employee management and updated stock and product management and what is new, website with schedule view for employees, and new feature leave request.

What we cannot promise is automated scheduling of working shifts. However, we will do our best to get to point when we can also concentrate on automated schedule. Opportunity to schedule shifts manually is guaranteed.

Our team will do its best to delight you with our software solution and the attached documents.

## Project Constraints

The first product presentation has a hard deadline of week 6. It will consist of the team presenting the functionalities with the highest priority (managing employees and stock), which will come in the form of an application. The team’s focus will be on making the prioritised requirements fully functional and the visual quality of the product might suffer slightly, as it will be put in the background until most other things are fully working. The programming languages which will be used are: C# and SQL for the application’s logical processes, HTML and CSS for the visual representation of it. We suspect that no money will have to be spent on hardware as such problems can be taken care of by our university (ISSD).

## Phase planning

Phase 1:

* Activities: Pre-implementation documents
  + Activity 1.1a:
    - Analysis of the first interview with the customer and initial work on the Project plan document
    - Estimated time: ~3 hours; done by the end of week 1
  + Activity 1.2a:
    - Finalisation of the project plan document based on feedback
    - Estimated time: ~1 hour; done by the end of week 2
  + Activity 2.1a:
    - Second customer interview
    - Estimated time: ~1 hour; done at the very beginning of week 2
  + Activity 3.1a:
    - Analysis of the second customer interview, outlining the discussed requirements and initial work on the URS document
    - Estimated time: ~4 hours; done by the end of week 3
  + Activity 3.2a:
    - Finalisation of the URS document based on feedback
    - Estimated time: ~1 hour; done by the end of week 4
* Deliverables (Milestone 1):
  + Deliverable 1.1: Project plan document
  + Deliverable 2.1: URS document

Phase 2:

* Activities: Implementing the software solution
  + Activity 1.1a:
    - Creation of the base architecture of the app based on the customer’s functional requirements and beginning the building process
    - Estimated time: ~7 hours; done by the end of week 4
  + Activity 1.2a:
    - Finishing touches on the app and work on the final UI design
    - Estimated time: ~5 hours; done by the end of week 5
  + Activity 2.1a:
    - Creation of a test plan and sending it to peers
    - Estimated time: ~3 hours; done by the end of week 5
  + Activity 3.1a:
    - Review peers and filling in their test report
    - Estimated time: ~2 hours; done by the end of week 5
* Deliverables (Milestone 2):
  + Deliverable 1.1: Test plan for our own project
  + Deliverable 2.1: Test report for the other group’s project

Phase 3:

* Activities: Presenting the software solution
  + Activity 1.1:
    - Creating a process report
    - Estimated time: ~2 hours
  + Activity 2.1:
    - Presenting the software solution to the customer and peers
    - Estimated time: ~1 hour
* Deliverables (Milestone 3):
  + Deliverable 1.1: Process report
  + Deliverable 2.1: Software solution

(i1) Phase 4:

* Activities: Planning the first iteration of the project and updating project plan + URS
  + Activity 1.1:
    - Meeting with customer to discuss functionalities for the next iteration
    - Estimated time: ~1 hour
  + Activity 2.1:
    - Update Project plan and URS according to the latest agreements with the customer
    - Estimated time: ~2 hours
  + Activity 3.1:
    - Split the work into tasks and assign them
    - Estimated time: ~1 hour
* Deliverables (Milestone 4):
  + Deliverable 1.1: Updated project plan
  + Deliverable 2.1: Updated URS document

Phase 5:

* Activities: Implementing latest requirements
  + Activity 1.1:
    - Update our UML class diagram & database
    - Estimated time: ~2 hours
  + Activity 2.1:
    - Update the windows forms UI
    - Estimated time: ~1 hour
  + Activity 3.1:
    - Implement the new classes for the latest functional requirements
    - Estimated time: ~6 hours
  + Activity 4.1:
    - Show the tutor our latest work and get feedback on it
    - Estimated time: ~1 hour
  + Activity 4.2:
    - Implement the feedback
    - Estimated time: ~2 hours
* Deliverables (Milestone 5):
  + Deliverable 1.1: Code
  + Deliverable 2.1: Code binaries

Phase 6:

* Activities: Present the first iteration to the customer
  + Activity 1.1:
    - Creating a process report
    - Estimated time: ~2 hours
  + Activity 2.1:
    - Presenting our work and discussing it with the customer
    - Estimated time: ~1 hour
* Deliverables (Milestone 6):
  + Deliverable 1.1: Process report

(i2) Phase 7:

* Activities: Planning the second iteration of the project and updating project plan + URS
  + Activity 1.1:
    - Meeting with customer to discuss functionalities for the next iteration
    - Estimated time: ~1 hour
  + Activity 2.1:
    - Update Project plan and URS according to the latest agreements with the customer
    - Estimated time: ~3 hours
  + Activity 3.1:
    - Split the work into tasks and assign them
    - Estimated time: ~1 hour
* Deliverables (Milestone 7):
  + Deliverable 1.1: Updated project plan
  + Deliverable 2.1: Updated URS document

Phase 8:

* Activities: Implementing latest requirements
  + Activity 1.1:
    - Update our UML class diagram & database
    - Estimated time: ~3 hours
  + Activity 2.1:
    - Update the windows forms UI
    - Estimated time: ~2 hours
  + Activity 3.1:
    - Implement the new classes for the latest functional requirements
    - Estimated time: ~8 hours
  + Activity 4.1:
    - Show the tutor our latest work and get feedback on it
    - Estimated time: ~1 hour
  + Activity 4.2:
    - Implement the feedback
    - Estimated time: ~2 hours
* Deliverables (Milestone 8):
  + Deliverable 1.1: Code
  + Deliverable 2.1: Code binaries

Phase 9:

* Activities: Present the second iteration to the customer, tutor, and peers
  + Activity 1.1:
    - Creating a process report
    - Estimated time: ~2 hours
  + Activity 2.1:
    - Presenting our work
    - Estimated time: ~1 hour
* Deliverables (Milestone 9):
  + Deliverable 1.1: Process report