



# PROJECT PLAN DOCUMENT

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Software solution for “Media Bazaar”

## Group 1

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Fontys ICT

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# Introduction

The company Media Bazaar is planning to open their very first shop in Eindhoven. Administration is struggling with management of the company. The biggest challenge that Media Bazaar's management foresees is keeping track of their employees, products, work shift scheduling and department management. Receiving a structured statistical information.

As a team of 4 members, we will work to deliver a working application that will help the company fix its problems.

## Client

Our client is Andre Postma, a representative for the hardware store "Media Bazaar", funded by the parent company "Jupiter". The company needs an effective solution to manage employees and stock, view statistics, give access to certain data and features after authorization as well as to be expandable with additional features in the future if this first phase is considered a success.

Client: Andre Postma, manager at Media Bazaar

Email client : a.postma@fontys.nl

## Team

Teammate	Number	Role	Email
Andrei Sava	4229258	Developer/ Designer	a.sava@student.fontys.nl
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Bohdan Tymofieienko	4132645	Developer / Team leader	b.tymofieienko@student. fontys.nl
Stelian Rumenov	3628140	Developer/ Minute taker	413549@student.fon tys.nl

### *Contact person:*

*Bohdan Tymofieienko, b.tymofieienko@student.fontys.nl*

## Current situation

“Media Bazaar” is a new hardware store, funded by “Jupiter”, is opening their first store located in Eindhoven and they intend to be as prepared as possible. Their management foresees keeping track of

employees and products as their biggest challenge.

Currently several disconnected solutions are being used, such as Excel sheets, papers etc. which would not be sufficient for the new store.

Therefore, they want to hire a team of software developers to develop an administrative system that allows its users to manage and keep track of employees and products.

The best possible way of developing this administrative system is to make sure managers and administrators make use of a Windows application to keep track of the employees and assign shifts.

For the employee side, it would be best to develop a website where each employee can login in and check announcements and, of course, their schedule with a weekly view.

The system is intended to be used by company management, administration, and employees.

There are competitors working on the similar solutions.

## Problem description

The client has a problem with the data management. “Media Bazaar” does not have an information system to manage their business processes neither a structured and organized approach of collecting and keeping statistical data.

## Project goal

### *Waterfall phase:*

The goal of this project is to improve the efficiency and productivity of “Media Bazaar’s” management and administration staff by creating, testing, and deploying a desktop application within the first phase, called Waterfall phase, which lasts 6 weeks.

Academic goal is to extend team knowledge and acquire practical experience with software development.

### *Iterative phase:*

During this phase we are going to work according to the iterative model which consists of four iterations, each of them will be described accordingly.

### **Iteration 1:**

The goal of this phase is to give employees a portal where they can see their schedule and manage personal information.

Academic goal is to study another project methodology, find benefits and weaknesses of the new approach. Team is supposed to improve theoretical knowledge, apply it on practice and acquire professional communication skills while working in the team.

### **Iteration 2:**

The goal of this phase is to arrange communication between depot workers, cashiers, and administration via information system, particularly with windows application and aid in product management.

Academic goal is to broaden technical knowledge and further develop communication/writing skills.

### **Iteration 3:**

The goal of this phase is to extend the departments the administration being the one's responsible. Also, managers, should have a deeper overview of statics about employees, products, and departments. Employees must be able to check-in and check-out, both admins and managers being kept up to date.

Academic goal is to improve our current technology and continue developing our communication/writing skills while working as a team.

## Deliverables for Waterfall Phase

The team will deliver the following:

1. A desktop application that meets the client's requirements: keeping track of their employees, products, work shift scheduling and department management, collecting a statistical information.
2. Project plan describing how the 6 weeks of time will be used
3. URS document with functional requirements, wireframes etc.
4. Presentation and demo at the end of the 6 weeks (week 6 being 22<sup>nd</sup>-26<sup>th</sup> March)

## Deliverables for Iteration Phase

### Iteration 1:

The team will deliver the following:

1. A website that meets the client's requirements:
  - Website for employees
  - Employees must be able to:
    - a. see some of their data
    - b. edit some of their data
  - Announcements and news for employees
  - Employees on permanent contracts can indicate up to two days during which they are not available
  - Contact form for employees to their managers
  - Future auto-scheduling algorithm should take in consideration employee's preferences
  - Avoid auto-removal in schedule
  - Finish before week 9 (12<sup>th</sup>-16<sup>th</sup> April)



**Iteration 2 (Due May 9th):**

1. Windows application according to user requirements.
  - a. Installer.
2. Web-application for employees according to user requirements.
  - a. Link.
3. Documentation.
  - a. Project plan.
  - b. URS.
  - c. Wireframes.
  - d. Peer review forms

**Iteration 3 (TBA):**

1. Windows application according to user requirements.
  - a. Installer.
2. Web-application for employees according to user requirements.
  - a. Link.
3. Documentation.
  - a. Project plan.
  - b. URS.
  - c. Wireframes.
  - d. Peer review forms

## Non-deliverables

The team will not deliver the following:

1. Workshops on working with software for staff.
2. Any kind of hardware

# Constraints

Constraint	Description
Fixed deadline	Everything we have agreed to deliver to the client must be completed before the deadline in week 12 (May 9th) up to and including iteration 2
Software tools	The website must be built using HTML, CSS, PHP, JavaScript
Methodology constraints	By using the Iterative methodology for this phase, we assume that the requirements may change at any time. Every iteration adds requirements to the already existing ones. Every iteration will represent a certain (set of) feature(s). In the end, the result may be different from what we started with initially

# Risks

Risk	Description	Impact	Mitigation strategy
Teammate dropping out	A teammate leaves the team due to dropping out of university	HIGH	Frequent communication in order to be informed as early as possible and re-distribute tasks
Project scope and purpose not defined clearly enough	During the information gathering phase, the requirements are not fully understood	HIGH	Clear client communication with detailed question, no assumptions and making sure all teammates are well informed about every project aspect
Technology change	The underlying technology on which the system is built is superseded by new technology	LOW	Avoiding the use of third-party extension and libraries which might not be useable after updates related to C# and the .NET Framework

Time	Running out of time due to unforeseen circumstances	HIGH	Contact client and tutor as soon as possible to describe situation and adjust requirements
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# Communication plan

To ensure proper communication, clearly understood requirements and quick reaction time in cases of unforeseen circumstances the team communicates on Discord daily, alongside the weekly meetings with the tutor. Also, an informal meeting is held at the start of the week (Monday or Tuesday) to distribute the tasks for the week.

## *Communication with client:*

During the Waterfall phase we will initially meet the client to gather all the needed information via MS Teams, use emails if any questions arise and to send deliverables before final presentation (such as documentation, agendas, minutes etc.)

The approach which will be used during the Iterative Phase consists of weekly tutor meetings via MS Teams and every three weeks a meeting with the client via MS Teams as well. Further communication if needed will be conducted via email or extra meetings in MS Teams. At the end of every three-week period the client will be presented with an application(s) that meets their requirements for that particular sprint.

# Phasing

## Waterfall phase:

### 1) Phase 1.1: Project analysis

Activities:

- i) Analyze client's problem.
- ii) Analyze current approach of dealing with the problem.
- iii) Work out the effective solution for the problem.

Deliverables:

- i) Project plan.

Description: In this phase team is focused on analyzing reasons and consequences of the current problem. Conducting the applied research and preparing the possible solution that fits with existing business processes is main priority.

Milestone: Project approval.

Due: February 28<sup>th</sup>.

## 2) Phase 1.2: Design

Activities:

- i) Design software architecture.
- ii) Make UML class diagram.
- iii) Design a GUI wireframes.
- iv) User Requirements Specification.

Deliverables:

User Requirements Specification.

Description: In this phase team designs and implements the solution. This includes design of the software architecture and data model design. Main priority in this phase is to strictly follow the targets set in the previous phase while working on the solution.

Milestone: Design approval.

Due: March 7<sup>th</sup>.

## 3) Phase 1.3: Implementation

Activities:

- i) Implement solution based on UML class diagram
- ii
- ) Create GUI based on design.

Deliverables:

- i) Interim version of the solution.

Description: In this phase team designs and implements the solution. This includes implementation of the software architecture and data model design. Main priority in this phase is to strictly follow the targets set in the previous phase while working on the solution.

Milestone: Interim approval.

Due: March 14<sup>th</sup>.

#### **4) Phase 1.4: Testing**

Activities:

- i) Create test plan.
- ii) Test the software.
- iii) Improve the software based on feedback.
- iv) Create test report.

Deliverables:

- i) Test report.

Description: In this phase software test are done. Team works on improvements based on feedback. Main priority in this phase is the reliability of the software.

Milestone: Pre-final approval.

Due: March 21<sup>st</sup>.

#### **5) Phase 1.5: Presenting**

Activities:

- i) Deliver final version of the application to the client.
- ii) Present the solution.

Deliverables:

- i) Software application.
- j) Presentation of the product.

Description: In this phase team deliver the release version of the software solution to the client. Team presents the product. Main

priority is to correctly present the product to the client.

Milestone: Final approval.

Due: March 25th.

### Gantt table

Week	1	2	3	4	5	6
Analysis						
Design						
Implementation						
Testing						
Deployment						

### Iterative phase. Iteration 1:

#### 1) Phase 2.1.1: Analysis

Activities:

- i) Update project plan.
- ii) Update User Requirements Specification.

Deliverables:

- i) User Requirements Specification.
- ii) Project plan.

Description: In this phase team does analysis. Team works on possible solution and updates required project documentation. Main focus is on improving of documentation.

Milestone: Documentation approval.



Due: April 4<sup>th</sup>.

### **Phase 2.1.2: Design.**

Activities:

- i) Design GUI wireframes.
- ii) Add wireframes to use cases in URS.

Deliverables:

- i) GUI wireframes.

Description: In this phase team designs GUI wireframes. Team adds them to use cases. Focus is on usability heuristics and particularly user-friendly design.

Milestone: Design approval.

Due: April 4<sup>th</sup>.

### **Phase 2.1.3: Development.**

Activities:

- i) Extend database.
- ii) Implement website.
- iii) Publish website on webserver,

Deliverables:

- i) Solution's code.
- ii) Database.
- iii) Website's URL.

Description: In this phase team implements the solution. Team updates database and implements the solution based on agreements made with client. Main priority is effective communication in a team.

Milestone: Interim approval.

Due: April 11<sup>th</sup>.

### **Phase 2.1.4: Testing.**

Activities:

- i) Continue working on development.
- ii) Test solution.
- iii) Present solution to the tutor.

Deliverables:

- i) Solution's code.
- ii) Process peer review.

Description: In this phase team continues working on solution. Team tests the solution and presents it to the tutor. Team makes process peer review.

Milestone: Final approval.

Due: April 18<sup>th</sup>.

## **Iteration 2:**

### **1) Phase 2.2.1: Analysis**

Activities:

- i) Update project plan.
- ii) Update User Requirements Specification.

Deliverables:

- iii) User Requirements Specification.
- iv) Project plan.

Description: In this phase team does analysis. Team works on possible solution and updates required project documentation. Main focus is on improving of documentation.

Milestone: Documentation approval.

Due: April 25<sup>th</sup>.

### **Phase 2.2.2: Design.**

Activities:

- i) Design GUI wireframes.
- ii) Add wireframes to use cases in URS.

Deliverables:

- ii) GUI wireframes.

Description: In this phase team designs GUI wireframes. Team adds them to use cases. Focus is on usability heuristics and particularly user-friendly design.

Milestone: Design approval.

Due: April 25<sup>th</sup>.

### **Phase 2.2.3: Development.**

Activities:

- i) Extend database.
- ii) Extend application.
- iii) Publish application.

Deliverables:

- iv) Solution's code.
- v) Database.
- vi) Website's URL.
- vii) Windows application installer.

Description: In this phase team implements the solution. Team updates database and implements the solution based on agreements made with client. Main priority is effective communication in a team.

Milestone: Interim approval.

Due: May 9<sup>th</sup>.

### **Phase 2.2.4: Presentation.**

Activities:

- i) Present solution.

Deliverables:

- i) Process report.

Description: In this phase team present solution to the client, tutor and audience. Main priority is explainable presentation design.

Milestone: Final approval.

Due: May 11<sup>th</sup>.

## **Iteration 3:**

### **1) Phase 2.3.1: Analysis**

Activities:

- i) Update project plan.
- ii) Update User Requirements Specification.

Deliverables:

- i) User Requirements Specification.
- ii) Project plan.

Description: In this phase team does analysis. Team works on possible solution and updates required project documentation. Focus is on improving of documentation.

Milestone: Documentation approval.

Due: 26<sup>th</sup> May.

### **Phase 2.3.2: Design.**

Activities:

- iii) Design GUI wireframes.
- iv) Add wireframes to use cases in URS.

Deliverables:

- iii) GUI wireframes.

Description: In this phase team designs GUI wireframes. Team adds them to use cases. Focus is on usability heuristics and particularly user-friendly design.

Milestone: Design approval.

Due: TBA.

### **Phase 2.3.3: Development.**

Activities:

- iv) Extend database.
- v) Extend application.
- vi) Publish application.

Deliverables:

- viii) Solution's code.
- ix) Database.
- x) Website's URL.
- xi) Windows application installer.

Description: In this phase team implements the solution. Team updates database and implements the solution based on agreements made with client. Main priority is effective communication in a team.

Milestone: Interim approval.

Due: TBA.

**Phase 2.3.4: Presentation.**

Activities:

- ii) Present solution.

Deliverables:

- ii) Process report.

Description: In this phase team present solution to the client, tutor and audience. Main priority is explainable presentation design.

Milestone: Final approval.

Due: TBA.

# Revision history

## **Project plan version 0.1 - 22/02/2021**

Editing by Stelian based on feedback from tutor meeting (23/02/2021) - 25/02/2021

## **Project plan version 0.2 - 26/02/2021**

Edited by Bohdan. Styled the document and small changes – 26/02/2021

## **Project plan version 0.3 – 28/02/2021**

Edited by Bohdan. Added Gantt table and fixed some typos – 28/02/2021

## **Project plan version 0.4 – 01/03/2021**

Edited by Stelian. Based on feedback from tutor and client from 01/03/2021

## **Project plan version 0.5 – 01/03/2021**

Edited by Bohdan. Changes in sections: Deliverables, Non-Deliverables, Project Goal.

## **Project plan version 1.0 – 03/04/2021**

Edited by Andrei. Update for Iterative Phase.

**Project plan version 1.1 – 04/04/2021**

Edited by Bohdan. Added phasing and minor changes.

**Project plan version 1.2 – 14/04/2021**

Edited by Andreea. Refactored the document according to both tutor's and client's feedback.

**Project plan version 1.3 – 14/04/2021**

Edited by Bohdan. Updated for iteration 2.

**Project plan version 1.4 – 06/05/2021**

Edited by Stelian. Updated and edited based on client and tutor feedback.

**Project plan version 1.5 – 23/05/2021**

Edited by Andreea. Updated for iteration 3.