

# **Table of contents**

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Introduction	3
Client	3
Team	4
Current situation	4
Problem description	5
Project goal	5
Deliverables	6
Non-deliverables	6
Constraints	7
Risks	8
Communication plan	9
Phasing	9

## 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	4132645	Developer /	b.tymofieienko@student.
Tymofieienko		Team leader	fontys.nl
Stelian	3628140	Developer/	413549@student.fon
Rumenov		Minute taker	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. Therefor 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 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:

### 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.

## **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 descripting 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**

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 (12th-16th April)

## 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 9 (April 18th)
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 completely different from what we started with.

# **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.)

# **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 28th.

### 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:** 

i) 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 7th.

### 3) Phase 1.3: Implementation

Activities:

i) Implement solution based on UML class diagram

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) 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 14th.

### 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 21st.

### 5) Phase 1.5: Presenting

#### **Activities:**

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

#### Deliverables:

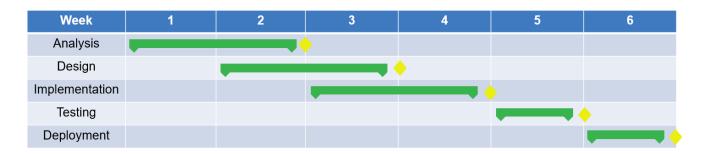
- i) Software application.
- j) Presentation of the product.

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



### Iterative phase. Iteration 1:

### 1) Phase 2.1: 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 4th.

### Phase 2.2: 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. Main focus is on usability heuristics and particularly user-friendly design .

Milestone: Design approval.

Due: April 4th.

### Phase 2.3: 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 11th.

### Phase 2.4: 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 18th.

# **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.

01/03/2021

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.