

# Process report



## ProP

**Group : MAD projects (ProP-17)**

**Group Members:**

**David Hooi (3587460)**

**Dimitar Ivanov(3476529)**

**Maria Khovanskaya(3648818)**

**Martin Grigorov(3476596)**

**Fontys ICT**

English stream

**Date :**

**Version : 1.5**

# TABLE OF CONTENTS

## Table of Contents

|   |    |
|---|----|
| Revision history.....                                 | 3  |
| 2.1. Week 1.....                                      | 5  |
| 2.2. Week 2.....                                      | 5  |
| 2.3. Week 3.....                                      | 6  |
| 2.4. Week 4.....                                      | 7  |
| 2.5. Week 5.....                                      | 7  |
| 2.6. Week 6.....                                      | 8  |
| 2.7. Week 7.....                                      | 9  |
| 2.8. Week 8 – Exam week.....                          | 9  |
| 2.9. Week 9 – Exam week.....                          | 9  |
| 2.10. Week 10.....                                    | 10 |
| 2.11. Week 11.....                                    | 10 |
| 2.12. Week 12.....                                    | 11 |
| 2.13. Week 13.....                                    | 12 |
| 2.14. Week 14.....                                    | 13 |
| 2.15. Week 15.....                                    | 14 |
| 2.16. Week 16.....                                    | 15 |
| 2.17. Week 17.....                                    | 15 |
| 2.18. Week 18.....                                    | 15 |
| 2.19. Week 19.....                                    | 16 |
| 2.20. Week 20.....                                    | 16 |
| 3.1 Opinion about deserved mark.....                  | 17 |
| 3.2 Justifying the mark.....                          | 17 |
| 4.1 Strong/weak traits that affected the project..... | 18 |
| 4.2 Learning moments from the project.....            | 18 |
| 4.3 Evaluation of spent effort.....                   | 18 |
| 4.4 Improvements for next project.....                | 18 |

## Revision history

| Version | Description                                |
|---------|--|
| 0.1     | Added week 1 Minutes and Who did what      |
| 0.2     | Added week 2 Minutes and Who did what      |
| 0.3     | Added week 3 Minutes and Who did what      |
| 0.4     | Added week 4 Minutes and Who did what      |
| 0.5     | Added week 5 Minutes and Who did what      |
| 0.6     | Added week 6 Minutes and Who did what      |
| 0.7     | Added week 7 Minutes and Who did what      |
| 0.8     | Added week 8,9,10 Minutes and Who did what |
| 0.9     | Added week 11 Minutes and Who did what     |
| 1.1     | Added week 12 Minutes and Who did what     |
| 1.2     | Added week 13 Minutes and Who did what     |
| 1.3     | Added week 14 Minutes and Who did what     |
| 1.4     | Added week 15 Minutes and Who did what     |
| 1.5     | Added week 16 Minutes and Who did what     |

# 1. Global work division

## 2. Weeks

### 2.1. Week 1

#### 2.1.1. Minutes

| Place           | Date                         | Time        |
|-----------------|------------------------------|-------------|
| Fontys          | 5 <sup>th</sup> of February  | 12:45-13:45 |
| Online meeting  | 9 <sup>th</sup> of February  | 12:00-16:00 |
| Online meeting  | 10 <sup>th</sup> of February | 15:00-18:00 |
| Individual work | -                            | -           |

#### 2.1.2. Who did what

| Name of the member | What was done   |
|--------------------|---|
| Maria Khovanskaya  | Brainstorming project, communicating with teachers, creating project plan structure, assembling parts of draft plan, deliverables |
| Dimitar Ivanov     | Brainstorming project, creating project logo, estimation of deliverables  |
| David Hooi         | Brainstorming project, creating project name, project goal and description, deliverables,   |
| Martin Grigorov    | Brainstorming project, creating project name, estimation of deliverables  |

### 2.2. Week 2

#### 2.2.1. Minutes

| Place           | Date                         | Time        |
|-----------------|------------------------------|-------------|
| Fontys          | 11 <sup>th</sup> of February | 11:30-13:00 |
| Fontys          | 12 <sup>th</sup> of February | 12:00-16:00 |
| Online meeting  | 16 <sup>th</sup> of February | 10:00-14:00 |
| Individual work | -                            | -           |

#### 2.2.2. Who did what

| Name of the member | What was done |
|--------------------|---------------|
|--------------------|---------------|

|                   |  |
|-------------------|--|
| Maria Khovanskaya | Brainstorming project, communicating with teachers, creating agenda's report, creating process report, assembling parts of project plan, version overview edited |
| Dimitar Ivanov    | Brainstorming project, introduction and current situation of project   |
| David Hooi        | Brainstorming project, risks of project  |
| Martin Grigorov   | Brainstorming project, constraints of project, uploading files to Git  |

## 2.3. Week 3

### 2.3.1. Minutes

| Place           | Date                         | Time        |
|-----------------|------------------------------|-------------|
| Fontys          | 19 <sup>th</sup> of February | 12:00-16:00 |
| Online meeting  | 23 <sup>rd</sup> of February | 16:00-19:00 |
| Individual work | -                            | -           |

### 2.3.2. Who did what

#### David Hooi:

This week I mostly worked on the first version of the setup document. I did the use cases, functional requirements for the website/applications and the GUIs for the applications. I also did the client section for the project plan and the helped with the tasks and milestones section

#### Martin Grigorov:

This week I was the group secretary. I took notes of the meeting. I started the list of our tasks, but i did mostly the first block. And it is not quite complete, because we have not discussed as a group who will do what.

#### Dimitar Ivanov:

This week, after discussing the layout of the website with the team. I started to work on the wireframe of the website.

#### Maria Khovanskaya:

This week, after discussing the team I started to create the entity relationship diagram of the database.

## 2.4. Week 4

### 2.4.1. Minutes

| Place                   | Date   | Time        |
|-------------------------|--|-------------|
| Fontys                  | 26 <sup>th</sup> of February                         | 12:00-16:00 |
| Online meeting          | 1 <sup>ST</sup> of March                             | 16:00-19:00 |
| Individual work David   | 4 <sup>th</sup> of March - 9 <sup>th</sup> of March  | 14:00-19:00 |
| Individual work Maria   | 7 <sup>th</sup> of March - 9 <sup>th</sup> of March  | 16:00-20:00 |
| Individual work Martin  | 6 <sup>th</sup> of March - 9 <sup>th</sup> of March  | 15:00-18:00 |
| Individual work Dimitar | 6 <sup>th</sup> of March - 10 <sup>th</sup> of March | 16:00-18:00 |

### 2.4.2. Who did what

#### **David Hooi:**

This week I mostly worked on learning how to use WPF to improve the first version of the GUIs I made for the applications. After learning a bit I started remaking the GUIs with WPF. I was also the secretary so I took notes during the meeting and then updated the agenda.

#### **Martin Grigorov:**

This week I completed the time visualization of the task that the group needs to complete in this project.

#### **Dimitar Ivanov:**

This week, after discussing design of the website with the team. I started to work on the design of the website.

#### **Maria Khovanskaya:**

This week, after a discussion with team, I continued working on database, according to notes that were told by group and mentor.

## 2.5. Week 5

### 2.5.1. Minutes

| Place                   | Date  | Time        |
|-------------------------|---|-------------|
| Fontys                  | 12 <sup>th</sup> of March                             | 12:00-16:00 |
| Online meeting          | 14 <sup>th</sup> of March                             | 16:00-19:00 |
| Individual work David   | 13 <sup>th</sup> of March - 17 <sup>th</sup> of March | 15:00-19:00 |
| Individual work Maria   | 15 <sup>th</sup> of March – 17 <sup>th</sup> of March | 16:00-20:00 |
| Individual work Martin  | 16 <sup>th</sup> of March - 17 <sup>th</sup> of March | 13:00-18:00 |
| Individual work Dimitar | 16 <sup>th</sup> of March - 17 <sup>th</sup> of March | 13:00-18:00 |

### 2.5.2. Who did what

**David Hooi:**

This week I worked the GUIs of the applications. I continued remaking the first designs of the GUIs and I also updated the setup document because we taught of more features and a extra application.

**Martin Grigorov:**

I did GUI for the admin app the employee window and for the loan stand.

**Dimitar Ivanov:**

I worked on the visual aspects of the website

**Maria Khovanskaya:**

I finished ERD and made database creation SQL code. I also made some small changes in documents.

## 2.6. Week 6

### 2.6.1. Minutes

| Place                   | Date  | Time        |
|-------------------------|---|-------------|
| Fontys                  | 19 <sup>th</sup> of March                             | 12:00-16:00 |
| Individual work David   | 20 <sup>th</sup> of March - 24 <sup>th</sup> of March | 15:00-19:00 |
| Individual work Maria   | 20 <sup>th</sup> of March – 22 <sup>th</sup> of March | 16:00-19:00 |
| Individual work Martin  | 20 <sup>th</sup> of March - 25 <sup>th</sup> of March | 16:00-18:00 |
| Individual work Dimitar | 20 <sup>th</sup> of March - 25 <sup>th</sup> of March | 16:00-18:00 |

### 2.6.2. Who did what

**David Hooi:**

This week I worked on completing the GUIs of the applications. I continued remaking the first designs of the GUIs and I also updated some of the use cases in the setup document.

**Martin Grigorov:**

This week I worked on completing the GUIs of the applications

**Dimitar Ivanov:**

I worked on the visual aspects of the website

**Maria Khovanskaya:**

I created use cases diagrams for website and application, edited existing use cases. I also made some more changed in ERD according to new ideas our team had after discussing applications.



## 2.7. Week 7

### 2.7.1. Minutes

| Place                   | Date  | Time        |
|-------------------------|---|-------------|
| Fontys                  | 26 <sup>th</sup> of March                             | 12:00-16:00 |
| Individual work David   | 27 <sup>th</sup> of March - 29 <sup>th</sup> of March | 16:00-20:00 |
| Individual work Maria   | 27 <sup>th</sup> of March – 28 <sup>th</sup> of March | 16:00-20:00 |
| Individual work Martin  | 28 <sup>th</sup> of March - 30 <sup>th</sup> of March | 16:00-18:00 |
| Individual work Dimitar | 27 <sup>th</sup> of March - 29 <sup>th</sup> of March | 17:00-19:00 |

### 2.7.2. Who did what

#### **David Hooi:**

This week I worked on the GUIs of the applications. I edited setup document, finalizing it and adding agreements with client.

#### **Martin Grigorov:**

I worked with agenda's of meeting and finalizing documents, adding logos and all the necessary information.

#### **Dimitar Ivanov:**

I worked on the website creation and editing, I also updated visual overview of time in project plan.

#### **Maria Khovanskaya:**

I edited documents, completing them with missing information (like page of content and title pages). I finalized ERD and SQL code for it, made a to-do file with list of required changes and divided the work among group.

## 2.8. Week 8 – Exam week

## 2.9. Week 9 – Exam week

## 2.10. Week 10

### 2.10.1. Minutes

| Place                   | Date   | Time        |
|-------------------------|--|-------------|
| Fontys                  | 16 <sup>th</sup> of April                    | 12:00-16:00 |
| Individual work David   | 16 <sup>th</sup> – 19 <sup>th</sup> of April | 13:00-19:00 |
| Individual work Maria   | 15 <sup>th</sup> – 17 <sup>th</sup> of April | 16:00-19:00 |
| Individual work Martin  | 15 <sup>th</sup> – 17 <sup>th</sup> of April | 12:00-16:00 |
| Individual work Dimitar | 16 <sup>th</sup> – 17 <sup>th</sup> of April | 12:00-15:30 |

### 2.10.2. Who did what

#### David Hooi:

In week 10 i learned how to code using viewmodels and models. I also started using Commands. I implemented logging in the applications and uploaded the database to the server.

#### Martin Grigorov:

Worked on documentation, time management and applications.

#### Dimitar Ivanov:

I updated information and some design stuff in the website.

#### Maria Khovanskaya:

I researched php and database connection practices applicable for our project (website-database connection and good queries). I studied use cases for website and was making a draft of php implementation. The project folder was sorted so that all these files would be in suitable folders.

## 2.11. Week 11

### 2.11.1. Minutes

| Place                   | Date  | Time        |
|-------------------------|---|-------------|
| Fontys                  | 23 <sup>rd</sup> of April                             | 12:00-16:00 |
| Individual work David   | 23 <sup>rd</sup> of April – 26 <sup>th</sup> of April | 13:00-19:00 |
| Individual work Maria   | 22 <sup>nd</sup> of April – 24 <sup>th</sup> of April | 16:00-19:00 |
| Individual work Martin  | 22 <sup>st</sup> of April – 24 <sup>th</sup> of April | 13:00-16:00 |
| Individual work Dimitar | 23 <sup>rd</sup> of April – 25 <sup>th</sup> of April | 13:00-15:30 |

### 2.11.2. Who did what

#### David Hooi:

This week i worked on the shop application. I implemented:

- Can now get items from database
- Show items in tabs with picture and stock
- Can search for items
- Can select item and show in listview

Also implementing rfid scanning library

Make employee only see the apps they have access to

Can now inspect employee which show there information

**Martin Grigorov:**

Worked on apps and checked if the database is suitable for the app.

**Dimitar Ivanov:**

I updated the agenda and process report and searched how to implement php in the website.

**Maria Khovanskaya:**

Tested php implementation that was developing during week 10 on my own server. After several successful tests it was decided to make my server the working server of our website.

## 2.12. Week 12

### 2.12.1. Minutes

| Place                   | Date                                      | Time        |
|-------------------------|---|-------------|
| Fontys                  | 7 <sup>th</sup> of May                    | 12:00-16:00 |
| Individual work David   | 7 <sup>th</sup> - 10 <sup>th</sup> of May | 13:00-19:00 |
| Individual work Maria   | 7 <sup>th</sup> - 9 <sup>th</sup> of May  | 16:00-19:00 |
| Individual work Martin  | 6 <sup>th</sup> - 9 <sup>th</sup> of May  | 13:00-16:00 |
| Individual work Dimitar | 7 <sup>th</sup> - 9 <sup>th</sup> of May  | 13:00-15:30 |

### 2.12.2. Who did what

**David Hooi:**

This week i used Zxing and Aforge libarys to create a qr scanner that is used in the Check in video.

Window title changes when user logins

Can now get visitor from qr code

Added background music and some sound effects

Get camping information from rfid chip

Added regex to converter app so that incorrec formats turn red, the date of the file is also shown

Can now add employee

remove employee

Added back button if user has access to more than one apps and they are in a app

Shop option is only availbe when job description has shop app in it

Impleteted conveters

**Martin Grigorov:**

I worked on the app. Made some small changes on our classes.

**Dimitar Ivanov:**

I fixed some CSS problems on the website and changed some php implementations.

**Maria Khovanskaya:**

Assembled everything that was developed the previous weeks and implemented it. Most of the use cases for website were covered in the developed solution.

Login, logout and session data storage was added. Session data is maintained which gives us easy access to all the data of user, without having to make a sql query every time. It also allows some data that is only important for this exact session to be stored without database.

Menu bar was changed to be different for logged in and not logged in users. If a user is logged in than there should be only “Profile” and “Log out” displayed on the right of the menu bar. If user is not logged in – the “Login” option should be displayed instead.

Registration was implemented with connection to the main working database. There is a check if current email is already registered.

Info about user is displayed on profile page. This information is stored in session and obtained in the minute of login. That helps to make it quicker to display this information, because no database access is required every time.

A todo file with list of not yet implemented tasks was created. It will be changing with new features and bugs being found out.

Ticket purchase with merch selection was implemented, a special table in database was created for it. This was a new client’s request, so it required a new database table. For every ticket purchase there is an information added about this new ticket holder to the database (ticket number is automatically generated with autoincrement in database).

Topping up balance function was implemented. We were told not to emulate withdrawing money from the bank account, so this feature just adds the required amount to the user’s balance, without actually withdrawing it from the provided IBAN.

## 2.13. Week 13

### 2.13.1. Minutes

| Place                   | Date                                       | Time        |
|-------------------------|--|-------------|
| Fontys                  | 14 <sup>th</sup> of May                    | 12:00-16:00 |
| Individual work David   | 14 <sup>th</sup> - 17 <sup>th</sup> of May | 13:00-19:00 |
| Individual work Maria   | 13 <sup>th</sup> - 15 <sup>th</sup> of May | 16:00-19:00 |
| Individual work Martin  | 13 <sup>th</sup> - 15 <sup>th</sup> of May | 13:00-16:00 |
| Individual work Dimitar | 14 <sup>th</sup> - 16 <sup>th</sup> of May | 13:00-15:30 |

### 2.13.2. Who did what

#### David Hooi:

This week i worked on starting to finish the apps. Mainly the checkin , shop and admin windows.

Can now sell ticket

can set rfid code of visitor

can now see camera in Check in view

switches tabs in shop view if search item is only in the other tab

Seperated items in food and beverage tabs

Made list with employees in admin view

#### Martin Grigorov:

I wrote us a To do list for the week.

Started The status view in the application. I made it possible to inspect how many people are expected for the event, how much event currency is sold and how much money the event made. I spent most of my time on SQL queries

**Dimitar Ivanov:**

I was working on Front end website and documents.

**Maria Khovanskaya:**

Fixed several bugs in php and implemented several other use cases for the website.

Reviews use case was implemented. That included ability to add review (only for users who have purchased a ticket and only once. If review is already left by this user – it is impossible for this user to leave one more. In database it is tracked with a hasReview parameter in visitor table.

Updated todo for website.

After front-end fix by Dimitar – implemented possibility of leaving an anonymous review. Made it possible for reviews to be shown on reviews page, on which they are uploaded from database.

## 2.14. Week 14

### 2.14.1. Minutes

| Place                   | Date                                       | Time          |
|-------------------------|--|---------------|
| Fontys                  | 21 <sup>st</sup> of May                    | 12:00-16:00   |
| Individual work David   | 20 <sup>th</sup> -27 <sup>th</sup> of May  | 17:00-20:00   |
| Individual work Maria   | 20 <sup>th</sup> – 22 <sup>nd</sup> of May | 16:00 – 19:00 |
| Individual work Martin  | 21 <sup>th</sup> – 23 <sup>nd</sup> of May | 08:00-12:00   |
| Individual work Dimitar | 21 <sup>th</sup> – 22 <sup>nd</sup> of May | 13:00-13:00   |

### 2.14.2. Who did what

**David Hooi:**

This week I worked on implementing the camping, loan stand and checkout windows. I also worked on displaying information to the user. And started handling exceptions.

Implemented the following:

Send email to visitor that purchased ticket at the gate

Can now deselect shop and loan stand items in itemview

Pay for camping spot in camping window

Loan and return items at loanstand

Can increase loan days(amount of days the visitor wants to loan the item) for each item

Can now determine when an item is overdue and charge extra for that item. This happens at checkout and loanstand

Can see visitor balance and unreturned items in checkout window

Can checkout temporally or permanently

Can Change employee

Get jobs from database

**Martin Grigorov:**

Finalized the status view of our app. Now the feature of inspecting the event is possible.

I was writing SQL queries most of the time. Made a To do list for next week.

**Dimitar Ivanov:**

I was working on sending emails, had to search about it in internet.

Fixed some visual problems and made contact us send emails.

Edited documents.

**Maria Khovanskaya:**

Updated process report for the last several weeks and studied QR code sending via email. It was necessary to provide image that would be accessible not only from server itself to be shown, but also to be viewed in email. For that I decided it would be best to use a library that can create QR code images, but there was still a challenge of delivering that image to the user. In the end I decided it would be the best solution to save the image in a special folder named “UploadedImages” and to create a path for email image to that folder. Names of the pictures would be ticketNr.png where ticketNr would be the ticket number of the user, who has bought the ticket. After several failed tried to implement this approach – I got my server blocked and had to wait to continue my work.

## 2.15. Week 15

### 2.15.1. Minutes

| Place                   | Date                                       | Time          |
|-------------------------|--|---------------|
| Fontys                  | 28 <sup>th</sup> of May                    | 12:00-16:00   |
| Individual work David   | 28 <sup>th</sup> -29 <sup>th</sup> of May  | 17:00-20:00   |
| Individual work Maria   | 27 <sup>th</sup> – 28 <sup>nd</sup> of May | 16:00 – 19:00 |
| Individual work Martin  | 28 <sup>th</sup> – 29 <sup>nd</sup> of May | 10:00-14:00   |
| Individual work Dimitar | 28 <sup>th</sup> – 30 <sup>nd</sup> of May | 13:00-16:00   |

### 2.15.2. Who did what

**David Hooi:**

This week I worked on adding the ability for a employee to have multiple shops or loan stands and the admin can now add or remove shops and loan stands from a employee. I then tested the use cases and handled any exception I came across.

**Martin Grigorov:**

I worked on our final todo list for the app and database

I worked on the app in particular on our loan stand window. I did some changes in our database and added loanable products and linked all the tables that work with the loanable window.

**Dimitar Ivanov:**

Documents

Website reviews fixed and other stuff

**Maria Khovanskaya:**

After I got back the ability of my server to send messages (I guess the limit was around 16 a day), I could finish the work on QR code sending. As I realized, I can debug the html I am sending using not email, but an html page. This made it much easier and after solving some more bugs – I finally pushed the version with working QR code sending (the sending is done right after ticket's purchase). After pushing this final version, I tested it, going through all use cases for website. No problems occurred.

After that, I discussed with colleagues the features that are already implemented and that are still in our to do list. I made a word document showing all the use cases of website with screenshots of these use cases tested.

## 2.16. Week 16

### 2.16.1. Minutes

| Place                   | Date                                       | Time          |
|-------------------------|--|---------------|
| Fontys                  | 4 <sup>th</sup> of June                    | 12:00-16:00   |
| Individual work David   | 10 <sup>th</sup> -11 <sup>th</sup> of June | 17:00-20:00   |
| Individual work Maria   | 7 <sup>th</sup> – 8 <sup>th</sup> of June  | 16:00 – 19:00 |
| Individual work Martin  | 9 <sup>th</sup> of June                    | 10:00-12:00   |
| Individual work Dimitar | 9 <sup>th</sup> of June                    | 13:00-15:00   |

### 2.16.2. Who did what

#### David Hooi:

This week I worked on the power point presentation. I made the slides for the apps and personal opinion slide. And added the information in the groups presentation text. I also decided on the demo scenario for the apps.

#### Martin Grigorov:

I made my personal opinion slide for the presentation.

#### Dimitar Ivanov:

I made my personal opinion slide for the presentation.

#### Maria Khovanskaya:

Made the general info, website and my personal opinion slides for the power point. And created a presentation text that contains the information that will be said in the presentation.

## 2.17. Week 17

### 2.17.1. Minutes

### 2.17.2. Who did what

## 2.18. Week 18

### 2.18.1. Minutes

2.18.2. Who did what

**2.19. Week 19**

2.19.1. Minutes

2.19.2. Who did what

**2.20. Week 20**

2.20.1. Minutes

2.20.2. Who did what



## 3. Mark justification

### 3.1 Opinion about deserved mark

### 3.2 Justifying the mark

## 4. Individual reflections

### 4.1 Strong/weak traits that affected the project

### 4.2 Learning moments from the project

### 4.3 Evaluation of spent effort

### 4.4 Improvements for next project

## 5. Appendix A: Report of the interview with the client