**Process Report**

Course: **ProP**

Group: **12**  
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Date: **15/01/2019**

Teacher: **Matthijs Kuiper**

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# ***Meeting Minutes***

***Meeting 1***

**Agenda item: Various Questions about the project to the client**

**Discussion:** A detailed version of the questions asked and the answers can be found on the google drive folder .

(https://docs.google.com/document/d/1PY1I6icQ9nURMWW7HAg\_HS-kXZV8o-WaPQQYtk-hKRk/edit)

**Agenda item: Help with technical Issues**

**Discussion:** For any technical difficulty , the project supervisor will not help us in any form whatsoever . For such scenarios we should approach other teachers .

**Agenda item: Client Meetings and Scheduling**

**Discussion:** For any communications going directly to the client , only one person should do it. In this case l our Project Manager ( Mohammad ) is in charge of this .

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| **ACTION ITEM** | **DEADLINE** |
| **Final Version of the Project Plan and ERD database template** | **By Next Week.** |

***Meeting 2***

**Agenda item: Initial Requirements**

**Discussion:** Draw up a theme for an event and use available technologies for its development . Also provide a project plan .

**Agenda item: Project Manager Meetings Discussion:** ​This will be once a week only .

**Agenda item: Client Meeting Agendas / Schedule**

**Discussion:**​. We only have 3 meetings throughout the whole duration of the project to meet with the client . The first meeting being on the 15 of September 2018.

**Agenda item: Project Goals**

**Discussion:** Project goals described in the Project plan are deemed small and ambiguous causing concerns to the client .

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| **ACTION ITEM** | **DEADLINE** |
| **Refinement of the Project Goals** | **By Next Meeting.** |

# *Meeting 3*

**Agenda item: Client Meet**

**Discussion:** Overview and update of where the progress is . So far the desktop application is 60% done and the website 80% done. Client requests font fixes on both the desktop and website application . Client is content with the progress made so far .

**Agenda item: Technical Aspect of the applications to be developed**

**Discussion:** Expectations is that the code written should be scalable and has great functionality

**Agenda item: Presentation of the final THEME to the client**

**Discussion:** The event will be called HighLands Halloween Festival and will have various events , camping sites/categories among others .

**Agenda item: Addressing the Project Goals conundrum**

**Discussion:** The project goals have been refined and approved by the client.

**Agenda item: Special Request from the client**

**Discussion:** It is the client’s wish that if possible we include some kind of statistics on both applications to be developed .

# *Meeting 4*

**Agenda item: Next update in 2-3 weeks time**

**Discussion:**We agreed to send an overview  with screenshots in 2-3 weeks time to the project supervisor via email.

**Agenda item: Project Supervisor Meeting**

**Discussion:** Final overview of both applications and their functionalities . Minor issues from last time have been addressed notably Font fixes and buggy extra features.

# *Meeting 5*

**Agenda item: Process Report and Final Presentation**

**Discussion:**The process report reflecting our progress so far should be included with the working final versions of the applications . We agreed to start preparing for the final presentation of the applications to the client on the 23rd of January.

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| **ACTION ITEM** | **DEADLINE** |
| **Process Report and Final Applications Versions** | **Wednesday , Jan 16** |
| **Final Presentation** | **Wednesday , Jan 23** |

**Agenda item: Client Meet**

**Discussion:** Explanation of theGeneral expectations from the client and agreement on the theme of the event .

# *Meeting 6*

**Agenda item: Final Overview of the project**

**Discussion:** ​This will be in form of a demo presentation of the working prototype

**Agenda item: Understanding the way the applications will work**

**Discussion:** ​2 different applications will be used ; C# and a Website , with authentication required. c# For the administrators and the website for the users.

# ***Work division***

**Group Work:**

Creating the database tables and attributes

Creating The project plan

Creating The Wireframes

**Individual work:**

**Mohammad**:

**Project Management:**

* Schedule the whole period of time and determine which sections of project need to be done in each phase.
* Preserving from group efficiency by solving conflicts and approximate members’ insights.
* Divide each section of every phases into subtasks and to do list and assign each between group members according to the capabilities and interests.
* Evaluating the system in different phases to ensure from quality of project in every section and try to detect and fix blind spots or add beneficial extra features
* Review every document and apply finial revision them.
* Contact with the client and inform him upon bi-weekly update
* Arrange meeting which all group members and the tutor can participate
* Take the responsibility of presenting the product at every stage to tutor and client

**Database:**

* Create ERD Database Model from Database Tables
* Transform Database Model to Database Design In MySQL Workbench

**C#:**

* Main GUI Designer of C# application:
  + Tickets Registration Section
  + Check-In / Check-Out Section
  + Stores including Basket Section
  + Camping Reception Section
  + Material Lend and Returning Section
* Camping Site Check-In / Check-Out Section Using ADO.Net Framework
* Material Lend and Returning Items section Using ADO.Net Framework
* Front-end Animations managing and Data validation of Ticket Section
* Provide and Implementation the group member of Ticket Section
* Format Transaction Receipt in Check-in Check Out Section
* Application and process tester of every section of C#

**Extra Features:**

* Provide third type of visitor VIP to add more services and options for marketing.
* Using Ado.Net in Camping and Material Lending/Returning Section.
* Implement the feature of registering different kind of visitors and by ticket directly from C#
* Implement the supportive procedures and checking the required status in each section.
* Apply limit to the number of items for every user based the number people in their account
* Apply concurrency control by using transaction concept in each interaction with Database

**Ryan:**

**Project Management :**

-Managed the documents and corrected mistakes in those documents

**C#:**

* Admin dashboard section
* Employee management section
* Statistics section

**Subhi:**

**Project Management :**

-Formatted the documents and took care of the wireframes

**C#:**

* Store Section
* Bank Logs reading section
* Ticket Purchasing back-end logic
* Main Form User Search
* Ticket Printing and barcode Generation in the Check-in section
* Designing and implementing main frame, navigation and admin dashboard sections of C# GUI
* Fixing the conflicts between GIT Heads

**Website:**

* All Back-End Code + Templating System
* Main Booking form creation
* Dashboard’s Ajax’s logic
* Implementing the Database
* Making the Navigation bar of the website dynamic.

**Extra features:**

* Password Forgot Feature(with token, expiry date and one time usage only)
* Password Hashing for both C# and Website
* Changing password feature
* Contact form(Ajax)
* Statistics in the website
* Camp Spot Check(Ajax)
* Ticket Cancelation (Ajax)
* After a ticket is cancelled, login is not possible

**Gael:** Created the The Static Part Of The Website and took care of the meetings’ minutes

**Project Management :**

* Meeting minutes taker

**C#:**

* Check In /Out Section
* C# Authentication i.e: Login

**Website:**

* All Front End code
* Dashboard Creation

**Extra features:**

* Login Based on administrative positions in the C# i.e : (Admin and Manager don’t see the same things ).
* Responsiveness(Mobile Friendly) on both the informative side of the website and the dashboard.
* Option to return loaned items from the Check In/Out section in the C# application
* Detailed representation of a specific transaction in the C# application
* Ability for a person in a group (not the admin) to check out of the event
* Client side form validation checks on input forms on the website

# ***Mark justification***

We believe that we are deserving a grade of 9.5. Every requirement and basic features is being functional and efficient. An intensive amount of testing has been taken in order to find and fix any potential problems and bugs where test plan has been provided as a result.

Below we mention a summary of tens of extra features that we did on top of basic requirements:

The *Website*has been designed in **full responsive** manner and we paid a lot attention to aesthetic aspects of it. Also we have implemented a **Managing Dashboard** where users can have an overview upon their spending next to the ability of increasing their account balance before and during event. Furthermore, a **ticket cancelation** feature also has been provided there in which visitors can cancel their ticket prior the commencement of event.

Next to that we have applied an intensive amount of **front-end (using ajax) and back-end validations and verifications** for preventing users from committing any illegal operations that can violate data integrity principles. E.g. disabling dashboard access after canceling a ticket or checking-out from the event.

And finally, extra security checks and features such as **password reset, password change, hashing passwords** has been applied to address those situations that visitor might forget their password and to give an answer to security concerns.

In C# application, we did a great strive for having **an eye catching, interactive and practical user interface** where only more than 30 hours has been spent by finding the best frame layouts, user controls and their color and position combinations which can led us to achieve such a magnificent graphical user interface that you can see.

We also provide **authorization** feature to distinguish managers from other kind of employees where only manager can access the Admin Dashboard and he can **manage employees** like add remove or modify their login credentials. Also we **visualized numbers by using Charts** in admin section to provide better insights and understanding of revenue from different segments.

We implement **In-app ticket registration** where different type of tickets can be purchased and theirs user details can be registered which provide big advantages on following situations:

* Where Online ticket purchase is not valid anymore but late visitors arrived to the event
* Act as a backup for ticket registration section when website does not work unexpectedly.

Furthermore, in Camp Reservation and Material Lend/Returning Sections, we utilized completely special data access technology **ADO.Net which provide distinguishable interactive UI** where user will have the ability of access to semi-offline version of Database **and dynamically sort the records** of these sections based on different attributes.

Also in store a **smart basket** and the ability of adding **toppings to food** was implemented.

And finally we apply a strict front-end and back-end validation to preserve from Data integrity in DB by **using Concurrency Control** and **handle exceptional situations in informative way.** And a lot more like : **printing the ticket in check-In** section, **well formatted receipt** and etc.

All of our documentation is believed to be done to the excellence level.

Why 9.5 and not 10? Because of some minor issues, such as GIT. We did not make very good use of it due to our lack of experience in that field.

# ***Individual reflections***

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| Self-reflection: **Mohammad Reza** | |
| **Strong/Weak traits that affected the project** | **Strong:**   1. The ability to make different opinions of team members close to each other and reach to the agreement points help the project to take gradual progress. 2. Preferring technically orientation to the personal opinions and setting to the rule, help us to keep the efficiency as much as possible. 3. The ability to divide big tasks to the bunch of sub-tasks and assign them to group expedite the progressing process.      1. The ability to pay as much attention as it is possible to find different blind spots in the process and try divide and conquer it to tackle it. 2. Time dedication and the sense of responsibility helps me to do those sections that other group members are not eager to do it but it will have a significant effect on the final quality of the whole project. 3. Having some degree of perfectionism which let me to did the remaining part of others and fix their draw backs when they are burnt down in order to preserve the fabulous quality of end product.   **Weak:**   1. I was not on time person, and this problem sometimes bring some tangible tension, especially since I have the role of team leader many times they need to determine what need to be done to get progress. 2. Since I am married student, I have less time available to put into work, and although I did all my responsibilities but I hardly can find time to go make 100% of additional features that I had in my mind |
| **Learning moments from the project** | **Hard Skills:**  **1- Database Modeling =** I found out how important to put attention to normalization principles in real project in order to preserve from data integrity  **2- Database Design Tool =** In the process of transforming Database Model to Database Design I used Oracle MySQL WorkBench which is one of the popular tools for this purpose and I found a great chance to be familiar with this environment and related database design techniques  **3- Version Controlling** = I realize to essence of using version controlling systems and it crucial role to keep development process organized and smooth and I put it in one of my planned expertise to develop it more deeply  **4- GUI Design Principle =** since I was responsible to design graphical elements of C# application I learn a bit how to have a dynamic, good looking Graphical Design  **5- Learn ADO.Net Technology =** although it was possible to stick to principles that were thought to us during school, I made a decision to challenge myself to use something more elevated and use an upper level of .Net data access technology which provide complete different way to interacting with Database in camping site and material lending and returning sections    **7- Managing Database Concurrency=** Learn how to manage concurrencies by using transaction controlling that help me to understand Multi-User Database Management principles of EDB 3  **8- Using complex C# Form Controls=** because of the project being a full fledge product I went beyond using common controls and learned to utilize more complex C# control like DataSet , DataGridViews, ToolStrips, TabLayout  **9- Overall Programming Skills =** Also this project helps me to apply my acquired knowledge from PCS module in a bigger scale and more real oriented project and its challenges help me to learn how I can divide complex thing into smaller one to accomplish it. I improve my understanding in almost every aspect of programming.  **10- Improving my English =** because of the huge amount of documentation I found a great opportunity to write more than 5000 word only myself in different documents which led me to have more writing experience and improve my writing skills.  **Soft Skills:**  1- The most important thing that I learned is the importance of group and team work in achieving a great and defendable result. I learned the key point of reaching to a fabulous destination which is to have a good team whose members are both technically capable and also be able to contribute in the process of fostering and progressing.  2- The importance of work division was really good for me, I thought it might be possible to do all things personally but after starting this project this was refined and I know that I cannot excel in everything.  3- I reach to the essence of scheduling and planning which let you know how you can conquer the project step by step. Also I found that observation of progress should be based on some measurable scale in order to evaluate the progress and retardation.  4- Also I learned the significance of having Business Administration and Project Management skills to lead the group properly on their roadmap because in every successful project there should be a capable Manager.  5- I learned how important to discuss share opinion and not get out of the temper while insights are different for the sake of taking progress and not leaving things undone. |
| **Evaluation of spent effort** | As the team leader, I spent a lot of effort upon checking and finalizing different part of the project which was done by other team members in order to assure they are free of mistakes and cover the requirements and also meet my desirable quality  Also I spent a lot of time in order to learn new technologies to enhance my technical capabilities in such a way that I am being able to apply a higher level of my previous knowledge into the project.  In total I record 65 hours of pure working in block 2 and 35 hours in Block 1 in total 100 hours of learning and implementing communicating and fixing. |
| **Improvements for next project** | 1- Try to be more punctual  2- Save more time by better personal planning  3- Take more challenging projects |

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| Self-reflection : **Subhi** | |
| **Strong/Weak traits that affected the project** | **Strong:**  -**Dedication:**  **GIT**, It was the worst experience due to the fact that it does not support Visual studio in a good usable way, it caused me a lot of time trying to merge the files of the rest of the group. At the end because of my dedication I was able to overtake it  **-PHP**, having our website running on hera caused us a lot of time trying to make the new functions in PHP 7 work on the hera server. That caused a lag in the process of creating the website, I did my best to not have that problem but using different technologies.  **-Courage**  **FrameWork**, One of the mates in the group suggested that we should use frameworks such as laravel, though he had the experience, the level of our website design was more complicated. So after trying for two weeks we decided to go back to plain php usage, and that made us lag as well and it took me more effort while transiting the website from the framework version to the plain php version which I had implemented.  **-Being more responsible**  Some Mates were not always available neither physically nor digitally, so I needed to take their position and make decision in their behalf  **-Helpfulness**  Trying to help other members who had issues led to really faster programming and faster process and that improved the product’s quality by much.  **Weak:**  -Analyzing the **Workbook** to create The project plan and the rest of the documentation was disturbing as there were stuff that were unclear.  -Being in a group of four persons makes it little difficult for everyone to agree on a certain thing, most of the time there were conflicts between **opinions**, that led to some lagging in the process. |
| **Learning moments from the project** | **1-The usage of Object Oriented Programming**  Learning how to make effective use of OOP was really helpful especially while working dynamic data and while reusing a certain method.  **2- The Usage of inheritance feature**  Learning how to implement the features of inheritance will make coding more enjoyable and quicker.  **3- The Usage of inheritance feature**  Learning how to implement the features of inheritance will make  coding more enjoyable and quicker.  **4- Database Creation**  Modelling databases in real life is challenging, it looked easy while doing the EDB Courses. Having many options, leading to many solutions made realise that there is no way to get the correct answer.  Since I was the one who implemented the database on the server, i figured out that it does not matter who much you think that a task would be easy, it will still have very many challenges that you will have to overtake.  **5- Learning Extra PHP & JavaScript**  Being the one responsible for creating the back end logic of the website, i learnt very many useful tricks and functions in PHP.  I also learnt how to manipulate HTML using the PHP which helped me showing certain information based on different links.  Going for further features like Password Reset made me understand the basic concepts of encryption and security checks.  I also learnt how to use JS to create dynamic forms.  **6-Ajax**  I Learned how to make good usage of ajax which requires knowledge of both front and back end logics and learning such thing is very beneficial in real life situations.  **7-Version controlling system**  I Learned new tricks on how to solve GIT conflicts and merges. I think that will help me a lot in the future.  **& Many more technologies beside the soft skills, such as communication ways and time planning and ....** |
| **Evaluation of spent effort** | -I made use of very precious time beyond the requested to be able to achieve the **best knowledge**.I had many part to do, and as i also had created extra features such as password reset feature, ajax for top up and ticket cancelation and other stuff and in addition i also helped my teammates who had issues in their sections and that also happened to be another way to learn newer stuff.  -If I am to evaluate my **mark**, i would give myself **11 out of 10** . |
| **Improvements for next project** | -Better work division, less unneeded meetings as we were wasting some time while we met due to other talks.  -Don’t go for further features unless the bare minimum is met. |

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| Self-reflection: **Ryan** | |
| Strong/Weak traits | Strong:   * C# wise I could do my part without many major issues.   Weak:   * Don’t have much care for adding extra features than what’s requested |
| Learning moments from the project | * Learned how to create custom user controls and how to modify them * Learned how to make better GUIs * Learned how to fix mistakes in Git and use Git branches |
| Evaluation of spent effort | I think I’ve spent a decent amount of time making my part, but when you compare it to the rest who have been making extra parts non-stop, it can get overshadowed. I always aim to keep my solutions simple, therefore you won’t find me easily into tons of new technologies trying to impress someone. If I’m to use a technology that’s new to me, it’s for sure to be because I think it’s necessary, not because it’s for extra points. Going beyond people’s expectations is nice and all, but wasting too much time in something that could take less time is inefficient. |
| Improvements for next project | * Be more open to others’ suggestions * Be more assertive into using new technologies ( since I can’t stand the feeling of being overshadowed ) * Only work on extra stuff if the mandatory parts are done |

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| Self-reflection : **Gael** | |
| Strong/Weak traits | **C# :** I learnt a whole lot of new features and technologies.  For example I learned proper and real life use of OOP features like inheritance , User Controls , windows forms control manipulations , and how to design a good looking application.  **GIT :** By far this was the most challenging issue , and I learnt a whole lot of new tricks to fix git conflicts.Though I had previously worked with git It was never in such a large group so obviously fixing related conflicts was a little bit challenging.  **Website** : In the beginning we wanted to use a php framework for the website and first succeeded in the first 2 weeks or so of coding , however , unfortunately however good I was at using the framework we(me and Subhi ) couldn’t quite move as fast as we wished we could have due to the fact that its complex and we really had to take time to go through every concept that we would require to make the best web application possible . |
| Learning moments from the project | Conflict resolution between team mates concerning different point of views.  Coding wise , I feel is where I made the most improvement especially coming from a web development background only , then moving to OOP , it was really fun and I made the most out of it . Proof being this application that we made.  I also learnt a lot about proper documentation for a project. |
| Evaluation of spent effort | I spent a decent amount of time on the project and gave every point of view or opinion I may have had. |
| Improvements for next project | Better time management. Focus on the bigger picture and not get caught up in trying to achieve the impossible , time wise , and in terms of extra features and what nots. |

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