



MENTOR MB-SYSTEM

Final Report

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Introduction

For a parent who wants to register their children to activities there can be many complications. In most cases the parents must drive down to the sports club facilities, register their children and are possibly asked to show up later to pay. Being able to register and pay for their children online saves both time and money and should be considered a natural thing more than a necessity.

Sport clubs have issues managing children registrations and payments for activities. Up until now this is mostly managed in various Excel documents which are hard to contain and can grow out of proportion. Having a system that monitors all registrations and payments helps sport clubs manage their participant's registrations as well as giving them better insight and overview of the clubs finance.

Mentor had a vision to create a system that would allow sport clubs to offer their activities to parents also allowing parents to register and pay for their children activities online. Mentor has worked with schools on solutions for several years and wanted to expand their customer base with this solution. This vision was proposed as a BSc final project in collaboration with Reykjavik University School of Computer Science.

In this report we introduce our solution, MB-System that solves the problems addressed above. MB-System will allow parents to sign their children up for activities and pay for them online. Not having to go through the process of making a call, drive down to the sport clubs facilities and find the appropriate person will save time and make the whole process more effective.

For sport clubs MB-System helps clubs keep track of members in various sports and give information and statistic about payments. Our solution enables accountants to register children for activities that have not already been registered by parents. MB-System also makes it possible to follow whether the activities have been paid for or not and export these information to their bookkeeping software.

MB-system is valuable to our customers since keeping track of all registrations and payments are often a bottleneck in sport clubs daily work. Having to manage all this information through various excel sheet or multiple programs takes up time and can cause information loss. Our solution will provide a central workplace for accountants to manage all this information, it makes collaboration between sport clubs and parents more effective and enjoyable.

In this report we will review the projects development process. In chapter 1 we will talk about our contractor Mentor. In chapter 2 we will introduce our solution and review the development process and outcome. In chapter 3 we will discuss tests that were executed during the development. In chapter 4 we will talk about practices used to make the project management and development process more efficient. In chapter 5 we will review the projects progress. In chapter 6 we review the team's facilities. In chapter 7 we will review the team's development process and in chapter 8 we discuss the projects future work.

1 Mentor

Mentor¹ was established in 2003, although its roots date back to the year 1990. In 1990 it started as a project in the University of Iceland on managing student punctuality, then in 2003 it was changed to web solution and the company around it changed to Mentor.

Today Mentor is a software development company that specializes in solutions for schools of all stages of education, and has a ten year experience in that field. The company has grown tremendously over the last few years. They service about 95% of first stage of education in Iceland, as well as providing service to over one thousand schools in Sweden, Germany and Switzerland. They provide a solution that is easy to use for school faculty and parent of the children attending the schools.

Our solution for parents will be integrated into Mentor's parent solution communicating with the accountant system through web services. We review this further in chapter 3.

2 MB- System

Our solution has been given the name MB-System. Our vision was to create a high quality leisure tracking and billing web solution that would help sport clubs manage children registrations and help parents sign their children up for activities.

In this chapter we review our analysis of the required features of MB-system. Then we take a look at what our solution has to offer. At last we discuss our development environment and the solutions architecture and design.

2.1 Analysis

Mentor had a vision to create a system that would allow sport clubs to offer their activities to parents allowing parents to register and pay for their children activities online.

Since no official requirement analysis had been made it was up to the team to analyze the systems requirements.

First the team held a meeting with Mentor's supervisor to get their feedback on required functionalities. To get a deeper understanding the team also met up with couple of sport clubs staff members to discuss our ideas and gain some insight into their needs. The information received in these meetings was then analyzed and the features required discussed. As a result we created a product backlog containing the desired requirements. The requirements were classified into A, B and C requirements where A requirements were the most important, then B requirements and least important were the C requirements. During the development of our solution changes were made to the product backlog in consultant with Mentor.

¹ Mentor – <http://www.mentor.is>

2.2 The solution

To define our solution we need to separate it into two solutions. The solution for sport clubs which we will refer to as the *sport club solution*. Then the solution for parents that is integrated into Mentor's solution, we will refer to as the *parental solution*.

The *sport club solution* will allow sport clubs to register their ongoing activities, manage their prices, discounts and availability. The solution also allows them to assign certain activities to a child or group of children. For accountants at a sport club to be able to fully keep track of their bookkeeping we created an export of data to be read into their bookkeeping software.

The *parental solution* gives parent a chance to sign their children up for activities at a sport club. The parent is given a suggestion of relevant activities to sign their children up for based on his/her children age, prior registrations etc. as well as having an opportunity to search for other activities.

2.3 Development environment

Development environment was chosen with guidance from Mentor to match their environment.

- Visual Studio 2010²
- ASP.NET 4.0 with MVC3 framework³
- Tortoise SVN⁴
- MSUnit
- Fluent NHibernate⁵
- Nuget⁶
- JQuery UI⁷
- JQuery Mobile⁸
- SQL Server 2008⁹
- Oracle 11g¹⁰

² Visual Studio - <http://www.microsoft.com/visualstudio/>

³ ASP.NET MVC - <http://www.asp.net/mvc>

⁴ TortoiseSVN - <http://tortoisesvn.net/>

⁵ Fluent NHibernate - <http://www.fluentnhibernate.org/>

⁶ Nuget - <http://nuget.codeplex.com/>

⁷ JQuery UI - <http://jqueryui.com/>

⁸ JQuery Mobile - <http://jquerymobile.com/>

⁹ SQL Server - <http://www.microsoft.com/sqlserver/>

¹⁰ Oracle 11g - <http://www.oracle.com/technetwork/database/enterprise-edition/overview/index.html>

2.4 Core Design

For the development on MB-System we used the MVC 3 framework for ASP.NET 4.0. We decided to use the MVC framework because it decouples views and models by establishing a protocol between them. This allows us to add new modules and modify the views without having to make changes to the projects structure.

To take the decoupling of our solution even further we created a service layer that acts as the core unit of our project. It connects to the data layer of the project, handling the business logic and casting the objects to a desired format requested by the controller.

This gives us the opportunity to easily modify or create new interfaces for our solutions since we are not required to redefine or change the logic for the interfaces.

On the service layer we also manipulated all the logic for incoming web services such as the Credit Card provider services and information about children from Mentor web services.

For our data layer we used Fluent NHibernate, an object-relational mapping solution for .NET. Fluent NHibernate provides a framework to map an object-oriented model to a relational database. Using NHibernate relieved us from the data persistence programming task as well as making querying for data easier. This also allowed us to run a local copy of the database on each of our computers always keeping the databases in sync as the domain model changed.

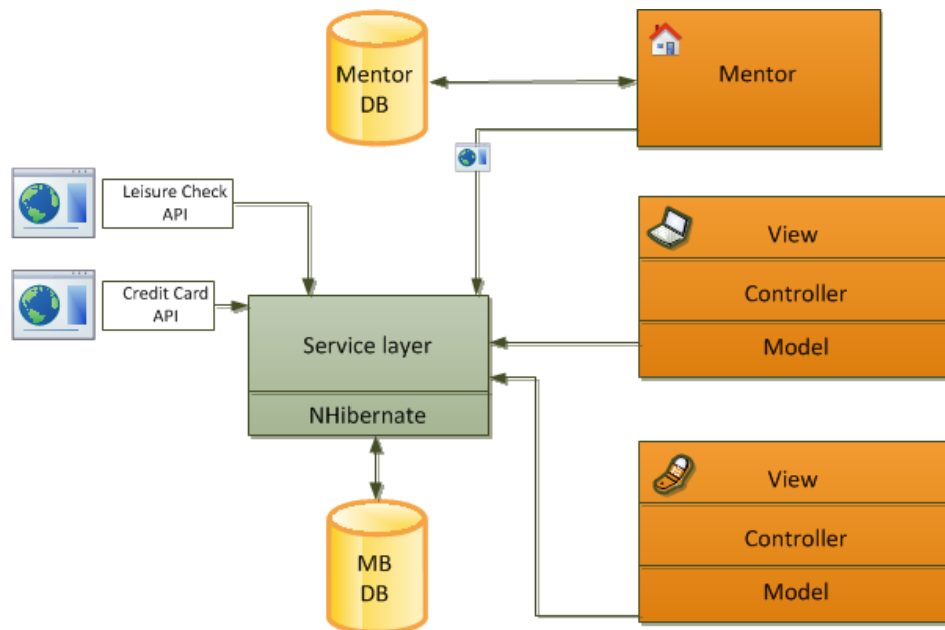


Figure 1 - MB-system's system overview

Figure 1 shows the solutions architecture and how each components of our solution depend on each other.

The MVC framework is used in the implementation of our interfaces, no business logic is stored at this layer and the controller's only duty is to return corresponding objects requested by the view.

We can also see how other layers of our system rely on the service layer since it handles all data manipulation and business logic. This helps decoupling our solution and making it easier to apply new modules and interfaces.

One of our guidelines was to be able to communicate with different credit card providers. This was handled both in our database architecture and in the service layer as well. We define different payment methods and providers so that each user can decide on which credit card provider to communicate with.

Our project architecture made it possible for us to create a mobile interface to our solution without having to go through the process of changing the service- or data-layer.

2.5 UI design

We needed to create a user interface for our two solutions, the *sport club solution* and the *parental solution*.

For the *sport club solution* the UI had to be designed from scratch. We used an online mockup tool called Balsamiq Mockups¹¹ to create wireframes of our solution which gave us an idea on how we wanted to structure the layout. The wireframes changed throughout the development process and became useful tool in designing the UI flow. Original wireframe designs ideas can be seen in *figures 2 and 3*.

Designing the UI for the *parental solution* was an easier task since not having it was to integrate into the Mentor solution for parents. We created simple wireframes with Balsamiq Mockup which helped us answering questions that would otherwise have come up during development. Sport club solution Wireframes

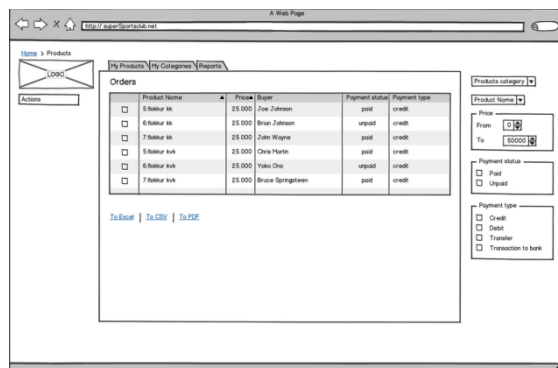


Figure 2

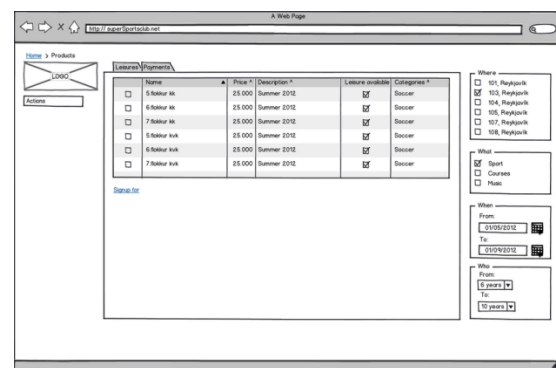


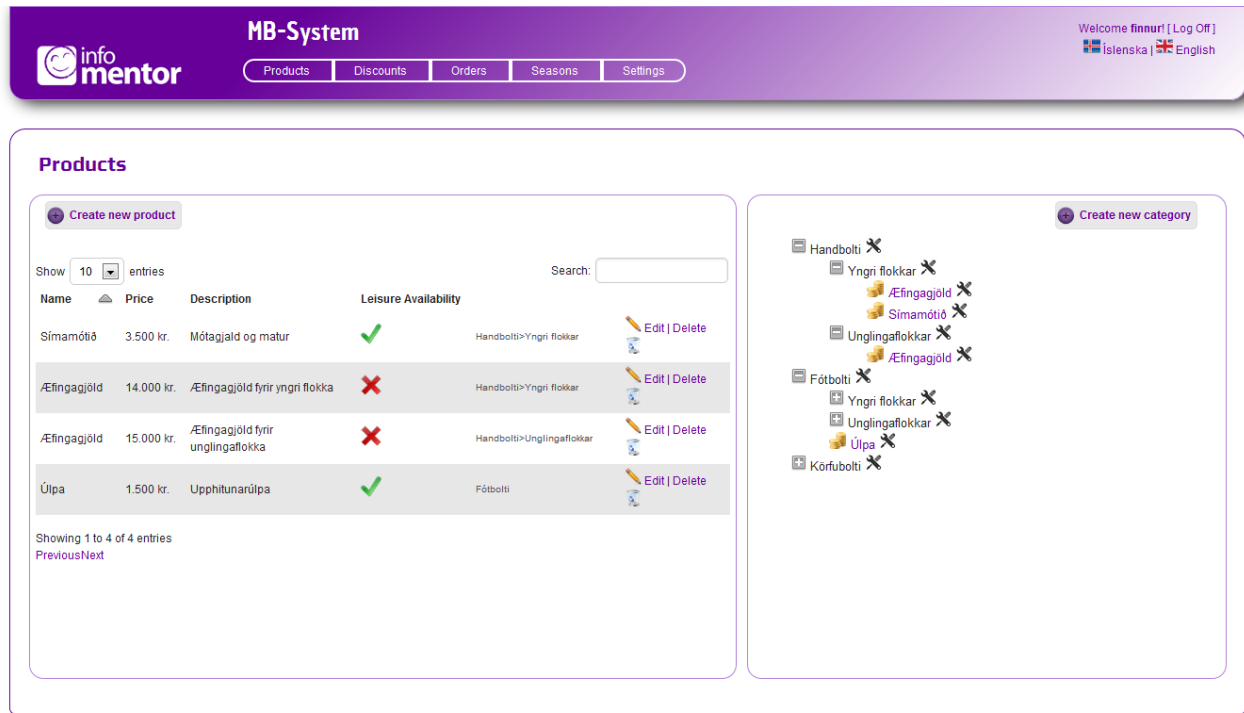
Figure 3

Figures 2 and 3 shows the original UI designs for the sport club solution.

¹¹ Balsamiq Mockups - <http://www.balsamiq.com/products/mockups>

2.6 The outcome

The screenshots below shows the end results of our design.



Products

Create new product

Show 10 entries Search:

Name	Price	Description	Leisure Availability	Category	Actions
Símamótið	3.500 kr.	Mótagjald og matur	✓	Handbolti>Yngri flokkar	Edit Delete
Æfingagjöld	14.000 kr.	Æfingagjöld fyrir yngri flokka	✗	Handbolti>Yngri flokkar	Edit Delete
Æfingagjöld	15.000 kr.	Æfingagjöld fyrir unglingaflokka	✗	Handbolti>Unglingaflokkar	Edit Delete
Úlpa	1.500 kr.	Upphitunarlpa	✓	Fótbolti	Edit Delete

Showing 1 to 4 of 4 entries
[Previous](#)[Next](#)

Create new category

- Handbolti
 - Yngri flokkar
 - Æfingagjöld
 - Símamótið
 - Unglingaflokkar
 - Æfingagjöld
- Fótbolti
 - Yngri flokkar
 - Unglingaflokkar
 - Úlpa
- Körfubolti

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Figure 4 - Example from our solution for sport clubs

Forsíða
Tilkynningar
Skóladagatal
Starfsmenn
Námsáætlanir
Krækjur
Bekkjalisti
+ Námsframvinda
Blogg
Umræðutorg

Store

Show 10 entries

Search:

Name	Price	Description	Categories	Club	
Handboltamót	12.000 kr.	Mótagjald, flug, gisting og matur	Handbolti>Kvenna>7. flokkur	Fylkir	Register
N1-mót KA	8.000 kr.	Mótagjald, rútufurð og gisting	Fótbolti>Karla>3. flokkur	Fylkir	Register
Prufa 1	1.500 kr.	fsf	Handbolti	Fram	Register
Simamótið	3.500 kr.	Mótagjald og matur	Handbolti>Yngri flokkar	Fram	Register
Æfingagjöld	15.000 kr.	Æfingagjöld fyrir unglingaflokka	Handbolti>Unglingaflokkar	Fram	Register
Æfingagjöld	14.000 kr.	Æfingagjöld fyrir yngri flokka	Handbolti>Yngri flokkar	Fram	Register
Æfingargjöld	18.000 kr.	Æfingargjöld fyrir 2-3. flokk karla	Fótbolti>Karla	Fram	Register
Æfingargjöld	15.000 kr.	Æfingargjöld fyrir 4-8. flokk kvenna	Handbolti>Kvenna	Fram	Register

Showing 1 to 8 of 8 entries

[Previous](#) [Next](#)

Products:
All categories
All clubs
Zip Code:
[Search](#)

Store
Payments
History
All Products

Figure 5 - Example from our solution for parents

Index

Select seller:
Please select seller:

Filter items...

Æfingagjöld
Æfingagjöld fyrir yngri flokka
Fram

14.000 kr.

Æfingagjöld
Æfingagjöld fyrir unglingaflokka
Fram

15.000 kr.

Æfingargjöld
Æfingargjöld fyrir 4-8. flokk kvenna
Fram

15.000 kr.

Æfingargjöld
Æfingargjöld fyrir 2-3. flokk karla
Fram

18.000 kr.

N1-mót KA
Mótagjald, rútufurð og gisting

8.000 kr.

Products Payments Payment history

Figure 6 - Mobile solution

3 Testing

In this chapter we discuss the testing that was done on the project. We believe that it is fundamental to perform test on our solutions for its qualities, so that we would be able to create the best and safest solution possible. We spent a great deal of time on preparing and researching tests, test that we felt would be helpful to make our solution better. In continuation to the research on testing, it was decided to implement three types of tests, a user test, acceptance test and a security test. By performing these tests we got feedback on MB-system, how it performs with a user and if it performs correctly as software. This served us greatly for it made us create a better solution.

3.1 User interview

User interviews were conducted, this was to get the best insight into how a user would like to see the system and use it. The main focus on the interview part was to interview to an accountant in a sports-club to get the best idea on how they would like to see the system. A decision was made to talk to an accountant who is already familiar with Mentor solutions. We received good feedback on our solution and the ideas we had as well as adding additional ideas. Getting a user perspective surely broaden our horizon and helped us getting a better idea how the user thinks.

3.2 Usability Testing

Near the end of the project a usability test was executed. Three users were selected for this task, with different backgrounds to get a better result. The users were given tasks to perform and we measured the time it took to perform each task.

We measured task performances on the scale of one to four, one if the task was performed in a fast pace and four if the task was not completed. All tasks were completed so we calculated that the average performance was between one and two, only one task was perform on three. In conclusion to that we calculated that MB-System was easy to use and very readable to users. We review the results in more detailed analyzing of the test in our *Test Report* on page three.

3.3 Acceptance Test

Before we started implementing MB-System we took each story on the product backlog related to the functionality of the system and created a use case for each and every one, each use case being an acceptance test of that story. Few days before code frees we took each test case and performed it on the system. This helped us double check that we were fulfilling all story point that we considered done on the product backlog. The test includes 15 test cases. All the testing is reviewed in more detail in our *Test Report*.

3.4 Security Test

Security is very important when it comes to applications that handle fragile information. A lot of business interests are at stake if someone could hack into our system and get hold off fragile information, therefore does systems like ours that handle fragile information have to be well protected against these attacks. Since our system is going to be on the World Wide Web we wanted to check if it was vulnerable for security threats and attacks. We ran our system through security test tool called WebSecurify¹² which checks the system for these vulnerabilities. The tool found the following vulnerabilities in our system.

- *Path Disclosure*¹³
- *User Disclosure*
- *Email Disclosure*
- *Banner Disclosure*
- *Autocomplete Enabled*
- *Error Disclosure*
- *Cross-site Request Forgery*
- *Sql Errors*

3.4.1 Conclusion

A lot of valuable information came out of the security tests that allowed us to fix a number of vulnerabilities and make our system more secured. Most of the risk factors where considered minimum and where easily fixed. For example the autocomplete was disabled and all unhandled SQL errors were handled. We can never say our system is perfectly secured from threats but by fixing these items that caused vulnerabilities were steps towards it. All the testing is reviewed in more detail in our *Test-report*.

¹² WebSecurify – <http://www.websecurify.com>

¹³ Path Disclosure - http://hakipedia.com/index.php/Full_Path_Disclosure

4 Practices

In this chapter we will review how our work was planned and structured. First we will address the roles and responsibilities given to team members. Then we will discuss how we used the Scrum methodology for our project planning. Last we will discuss how our time was spent on the project as well as reviewing our working environment.

4.1 Roles & Responsibilities

All team members got responsibilities to follow throughout the project. Responsibilities were chosen to match the member's strengths

Source control maintenance:	Frans Veigar Garðarsson
Scrum master:	Frans Veigar Garðarsson
Documentation:	Ólína Björg Þorsteinsdóttir
Database-management:	Finnur Kolbeinsson
Testing supervisor:	Jón Rúnar Arnarson

Source control maintenance was managed by Frans and his job make sure that check-ins were well commented, creating branches and always keep a stable version of the project running on a main branch.

The job of scrum masters job was to be the communicant between the company and the team along with enforcing that the team worked by the scrum methodology and keeping performance level at its highest.

Ólína was made responsible for documentation. Her job was to make sure that reports for hand-in were in constant development as well as ensuring that the team was making a contribution to all necessary reports for final hand-in.

Database management fell into the hands of Finnur who oversaw the database setup and gave support for NHibernate usage.

Jón Rúnar was chosen to supervise testing. He was responsible for finding a smart way to test our software for both usability and performance.

5 Scrum

We chose to use the Scrum¹⁴ methodology in our project, for it is well suited for a project of this size and timeframe. Scrum is an Agile based work structure, in scrum you break down the project in stories and then the stories into tasks. In scrum each story is given a size measure that are story points, the team estimates the points together to be able to calculate how long it would take to implement a story.

On the analysis phase a product backlog was created which contained all requirements for our project. The requirements were broken into stories and estimated using Planning Poker¹⁵. The stories were then divided to sprints and broken into tasks. At the beginning of each sprint the programmer responsible for the story estimated the time it would take to finish each task.

As development of the project progressed it was vital to review the product backlog and get answers to question that had been addressed. Therefore the team met up with the product owner Auðunn Ragnarsson from Mentor at the start of each sprint to discuss the stories for each sprint and address necessary questions.

5.1 Story points

Since the team was relatively new to estimating user stories we decided on using an online tool from PlanningPoker.com. As the name clearly state the team used Planning Poker to estimate the stories.

The story-point scale was: **0.5-1-2-3-5-8-13-20-40-100**

The planning went well although in few cases team members disagreed on the difficulty of some stories. In the end team members reached a unanimous decision

5.2 Sprints

It was decided to have two-week long sprints¹⁶. The reason was twofold, first, the size of the project relatively small and the requirements are vague. Being able to show our working product at such short intervals will open up for changes in the project. Second, the project time is narrowed down and all project milestones are defined. Thus two week sprints fit well into the overall project framework with respect to hand in dates and status meetings. It was essential to keep all team members involved in sprint planning and overview. Therefore there was set up a scrum whiteboard on the office premises, so progress could be monitored on an ongoing sprint.

Daily meetings¹⁷ were held at the start of each work session, meaning sessions were all members were on the work premises. In count of a various school schedules this was not always possible.

¹⁴ Scrum - <http://www.scrumalliance.org/>

¹⁵ Planning poker - <http://renaissancesoftware.net/files/articles/PlanningPoker-v1.1.pdf>

¹⁶ Scrum sprints - <http://www.scrumalliance.org/articles/39-glossary-of-scrum-terms#1118>

¹⁷ Daily scrum meeting - <http://www.scrumalliance.org/articles/39-glossary-of-scrum-terms#1128>

5.3 Sprint velocity

To estimate the velocity¹⁸ of our first sprints, the team decided to use the two stories that were the easiest to implement

These two stories had a combined of 13 story points. The team broke them into tasks and estimated the hours that would take to finish them. A total of 55 hours were estimated for implementation on the two stories, which resulted in roughly 4 hours per story point.

The teams capacity for a normal sprint was 144 hours, and therefore we could estimate to finish $144/4=36$ story points on each sprint.

5.4 Work hours

Each team-member was responsible for logging their work hours on the project. The scrum document also kept track of time spent on the project

6 Facilities

Mentor made the team welcome to work in their facilities. The team made good use of their gesture and stayed there most of the time to work on the project. Since one of the team member's works for the company, there was access to the facilities both at night and weekends without trouble.

¹⁸ Sprint velocity - <http://www.scrumalliance.org/articles/39-glossary-of-scrum-terms#1110>

7 Progress overview

In this chapter we look at progress of our project throughout the development. First we will look at the product backlog¹⁹ for MB-System. Next we will look at the projects overall burn-down chart and at last we will quickly look at the total work hours spent on the project.

7.1 Product Backlog

Our product backlog consisted of all the requirements found in the project scope in the beginning. From the requirements we created user stories which all had different priorities based on their relevance to the project's needs.

The product backlog was divided into sections based on the user stories priorities, the division was as follows:

Priority level	Number of user stories	Estimated size (story points)
A	21	233
B	2	10
C	1	40
Total	26	283

Table 1 Total estimation in story points

Table 1 shows number of user stories at the beginning of the project. The table also shows our total estimation in story points.

Priority level	Number of user stories	User stories completed	Estimated size (story points)
A	21 (3 removed) (2 added)	21	208
B	4 (2 added)	5	23
C	2 (1 added)	2	80
Total	28	28	311

Table 2

Table 2 shows the number of stories at the end of our project as well as number of completed stories and our story point estimation.

The product backlog can be reviewed in more detail in the *Product Backlog report*.

¹⁹ Product backlog - <http://www.scrumalliance.org/articles/39-glossary-of-scrum-terms#1125>

7.2 Project Burn-down

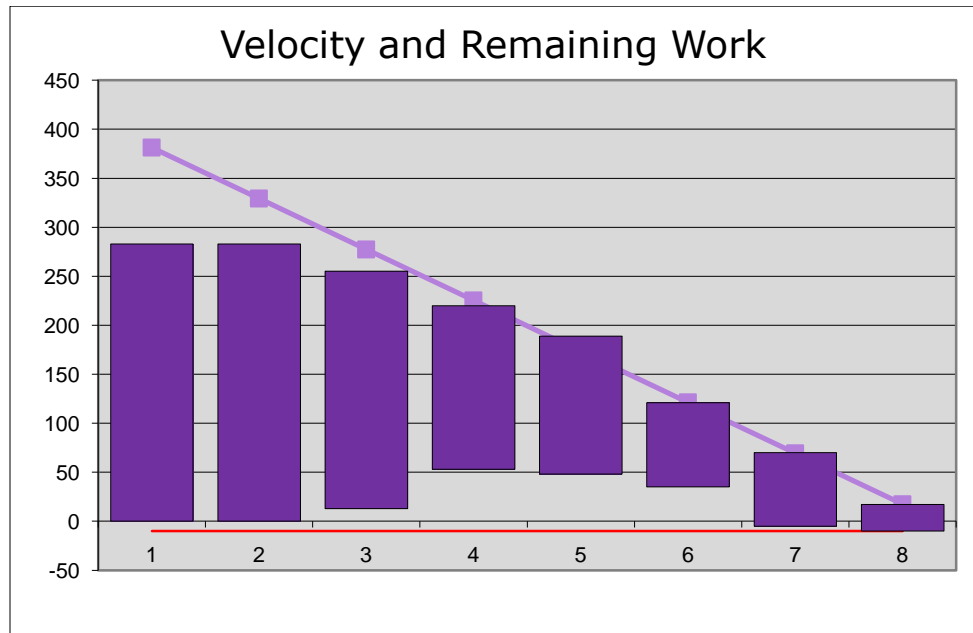


Figure 7 - Overall product burn down chart

Figure 7 shows the overall burn-down chart²⁰ of our project is displayed. In this chart the bars show the actual implemented functionality at the beginning of each sprint. The bottoms of the bars show the change in the projects scope, that is if the project increases or decreases. The length of the bars indicates the estimated size of the project at the beginning of each sprint. The red line indicates the current planned scope.

At the start of our project our product backlog consisted of 283 story points. In the third and fourth sprint stories were dropped and the opportunity taken to add new stories. In the end our number of story points in our backlog was 311 which were 28 story points more than our original estimate.

The projects progress report can be reviewed in more detail in the *Progress Plan* report.

²⁰ Burndown chart - <http://www.scrumalliance.org/articles/39#1127>

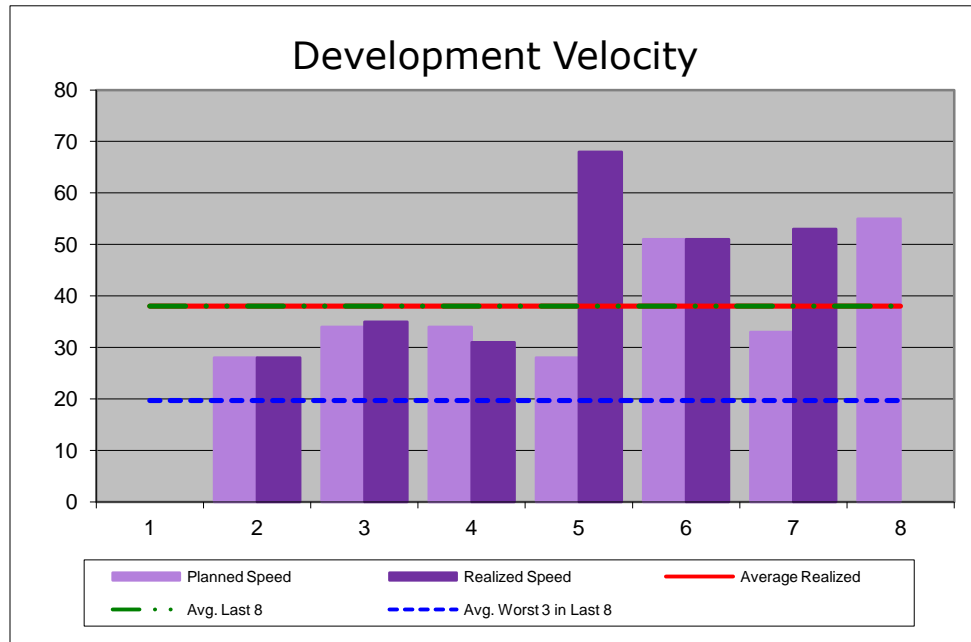


Figure 8 - Development velocity

Figure 8 shows the team's development velocity. The pale purple bars show the planned speed of each sprint, the dark purple bars represent realized speed after the sprint and the red line represents the average speed of the 8 sprints.

In sprint 7 we did not plan to be able to burn down many stories since the team had exams. However the team was actually able to put in lot of work during this sprint. In sprint 8 the team had no classes in school so we were able to spent most of our time working on the project. This resulted in 2 good weeks where we were able to burn down the remainder of the stories.

7.3 Work hours in total

Time estimate for preparation, documentation and handling the project was 1400 -1600 man hours. Real time went little over 1600 hours so the team was fairly close to its estimation on working time for the project.

8 Future Work

In this chapter we will look at the future of the project as well as discussing possible defects of our solution.

8.1 The future of the Project

MB-System will be delivered to Mentor as a full blown activity tracking and billing system ready for first use. There are countless possibilities of expanding our solution and this project is just a one milestone into further development.

At the beginning of the project Mentor discussed the possibilities to expand our solution to a full online store that could sell study material, educational games, books etc. We made this a guideline in our design and can say that given the architecture of our solution this idea could become real in the near future.

MB-System will be deployed in multiple stages, its future development will depend on the success at each stage.

In the first stage MB-System will be executed in couple of pilot sport clubs. We will be successful if our clients find it joyous to use and can give us input into future development.

In the second stage MB-System will be available for all sport clubs that show interest in our solution. We will be successful if at least 10 sport clubs will use it within 12 months.

In the third stage we will deploy an improved version of the system based on suggestion from our clients. We will be successful if our improvements will fulfill our current client needs and also attract new clients.

8.2 Known defects

To meet all of the client's needs there is one big requirement that was left out. Most town give out so called leisure checks that allow parents to fully or partly pay for their children activities. This leisure check process varies from one town to another and a decision was made in collaboration with Mentor not to implement this requirement at this point, because of the possibility of having to create different logic for each town.

However we know that many towns are looking at the option of taking up online services for these leisure checks. We therefore made the necessary modifications to our solution so that when the time comes MB-System handle information from these services.

The system has not been fully tested for security threats. As for the payment part of the solution, strict guidelines from the credit card provided were followed to minimize the risk. No payment transactions are being handled by our solution nor do we store any information on client's credit cards.

Mentor will perform standardized security tests on MB-System before launching the system into production.

9 Conclusion

Our work on the project went very well. The team was well organized and communications within were good. The team tried to resolve all conflicts when they arose, this often resulted in big debates where decisions were taken to best serve the team and the project.

Working with the Scrum methodology gave the team a good lesson in project management. Having to plan ahead and organize sprints gave the team more insight into what features to implement.

A lot of experience was gained from trying out new technologies that the team had not used before. This left us with a lot of new knowledge and a broader background in software development which will serve us well in the near future.

The collaboration with Mentor was very enlightening. The good staff morale and helpfulness helped the team feel welcome.

Working in collaboration with a software company such as Mentor, gave a good insight into how software development process works in the real world. The experience of analyzing, designing and developing enterprise software to meet up with their standards will help the team on their future work in the business.

9.1 Contacts Review

"Við vorum búin að vera á leiðinni með að smíða skráningar og greiðslukerfi í lengri tíma þegar sú hugmynd kom upp að fá nemendahóp í tölvunarfræði til að leggja grunnin að verkefninu. Strax í upphafi var mikill áhugi ákveðinna nemenda til að taka að sér verkið og strax eftir kynninguna var ákveðið að Frans Veigar Garðarsson, Ólína Björg Þorsteinsdóttir, Finnur Kolbeinsson og Jón Rúnar Arnarson væri rétti hópurinn í verkið. Þau hafa sýnt verkefninu mikinn áhuga allan tímann og verið einstaklega dugleg við að leysa allt sem upp hefur komið með lágmarks hjálp frá fyrirtækinu. Þeim var settar fastar skorður um hvernig allur kóði þurfti að vera uppbyggður og fóru þau eftir því í einu og öllu sem gerði alla kóðarýni mjög jákvæða. Lokaafurðin fór fram úr okkar björtustu vonum og næsta skref verður að tengja vörurnar saman og koma á markað."

Auðunn Ragnarsson - Chief Technical Officer

9.2 Thanks.

To Mentor for making us feel welcome and like one of the family. We are delighted to be given the opportunity take part in making of the system that this project stands for. It's unthinkable that we could have been any luckier.