Web application for PWN Lisbon 2015 Mentoring Program

Marta Nunes Baptista

Learning Report

Abstract—On fist person my point of view on the development of a web-application for Professional Women Network Lisbon is reported. During two months where some things could have been avoided and others were a success, everything resulted in a well-accomplished web-application, a satisfied client and a lot of learning. I am now more confident and self-aware with a more realistic idea of professional project management and software development.

Index Terms—project management, web development, web-application, leadership, confidence.

✦

This document will be hosted in the website of the course!!

1 INTRODUCTION

THIS document is written on first person because it is in fact a reflection on what I experienced while developing a web application for the Professional Women Network (PWN) Mentoring Program as an activity for the Independent Studies subject. This document complements another one of the same author, the Activities Report. *(Reference?)*

Although a non-disclosure agreement was not signed between me and PWN this document is confidential as it reveals information I consider ethically wrong to be shared. I will enumerate my learning in different areas, starting on web-development, through project management concluding in all I learned about myself.

2 WEB-DEVELOPMENT

Computer Engineering students should know about programming: concepts, algorithms, patterns, practiced with programming languages in a several curricular projects. When considering a web-app those who have not developed one yet assume it shouldn't be much complicated - immediately a parallelism is made to all

- *Marta Nunes Baptista, nr. 64075,*
  E-mail: marta.baptista@tecnico.ulisboa.pt, Instituto Superior Técnico, Universidade de Lisboa.

the developed software in every subject on the course, complemented with the potential aid of Google and Stackoverflow[1] concluding: it's doable. These are some things I learned about web development:

- Everyone can learn a programming language nowadays. I came across many websites and platforms loaded with tons of videos and tutorials to teach a specific programming language. All these videos must be complemented with practice.
- My Bachelor and Masters gave me the tools for programming but not about server hosting. I realized I knew nothing about server hosting and I felt my course was missing such a useful issue in a more practical component.
- Ruby on Rails is awesome. Being part of a community that openly shares solid software modules that you can easily pack into your app is not only very helpful but inspirational. This facilitates and avoids hard coding of basic functions that are common to most apps: authentication, pdf generating, file uploads, etc.

3 PROJECT MANAGEMENT

I was a scout for 13 years, always in leadership positions and I usually am the one to assume

1. http://stackoverflow.com/ - A question and answer platform for programmers. *in Reference!*

(1.0) Excelent	LEARNING					DOCUMENT						
(0.8) Very Good	CONTEXT x2	SKILLS x1	REFLECT x4	S+C x1	SCORE	Structure x0.25	Ortogr. x0.25	Gramm. x0,.25	Format x0.25	Title x0.5	Filename x0.5	SCORE
(0.6) Good												
(0.4) Fair	2	1	4	1	8	0.2	0.2	0.2	0.25	0.5	0.5	1.85
(0.2) Weak												

leadership in curricular projects or even among my group of friends. I'm comfortable with that part. I was the project manager in this project, I never presumed I had enough experience but having an IPMA[2] Certificate in Project Management and good grades on the matter I thought I could do it well. I was wrong, Project Management requires more than anything a lot of experience and I will detail what I learned about scope and requirements, resources and communication in this section.

3.1   Scope and Requirements

The extra functionalities and changes requested could have been avoided. I should have noticed the warning sign on the first meeting when the PWN mentoring team said: "there is already a software that does this on the market, Chronos, but it is too expensive for us". Developing a tailor-made (and free) version of Chronos was their goal. Now it is obvious for me that when it comes to requirements, Chronos was the limit. I should have insisted in a written, signed and agreed list of requirements. The initial necessity of not being too formal or not to bother PWN came from my newbie-naivety and lack of trust in my skills and knowledge. No matter the size and complexity of the project, this is something I will not let pass again.

3.2   Resources Allocation

We were initially a team of two I invited Rita to join me, I would be more active on the first semester and then pass over the development her on the second semester. I limited the number of resources to avoid new resources related problems as well as the code being too disperse. After 4 weeks, Rita hadn't been able to work for the project (not as much as the project was demanding), so I talked to Rita and decided to replace her with another developer. I asked Nuno, another colleague of mine which accompanied me in many curricular projects to replace Rita. Nuno joined the project. What I learned about this is no matter how close people are, when they don't feel the same urge or have the same need to solve a problem

2. International Project Management Association

you cannot expect them to give as much as you do, or as they did in the past when their grades were on the line. Partners with different needs and ambitions, don't work. Also, I failed by underestimating the workload this project would be. I thought it would be a simpler project and I could easily do it with help, but maybe a team of 3-4 people would have been de ideal.

3.3   Communication

This issue is related to the resources allocation but I consider it more a problem of communication. On the beginning of the project the PWN Mentoring team said to the project advisor, Professor Mira da Silva, that there was a budget available for this project and led both the Professor and me to think this project would be paid. On the first meeting between all the people involved (project owners and resources) nothing was said about payments, and respectfully we didn't ask. Between the first and the second meeting, the Professor told me he had been contacted by the PWN Mentoring team asking if he thought the developers should be paid and he not only told them yes but that he thought they would do wrong by not paying, because people work better and with a bigger sense of responsibility if they are being paid. The PWN Mentoring Team said that paying would be considered for the end of the project as a "bonus". Nothing was said on the following meetings. Nor the end of the project.

During the project many options and ideas were given concerning the server hosting payments, PWN's reluctance in spending money was evident but never specific. I believe the web-application would be in use today if they were not so reluctant to pay for Heroku or quicker on taking decisions. PWN claims the delay was the reason to use the web-app, which is true, but a delay they created when the time to pay for something came. This is a communication problem too, because a budget for the project should have been stated from the very beginning in order to avoid the lack of trust from PWN, whose attitude was: "We see how the web-app looks when it is finished

and then we decide if it is worth the money for the server or not".

I learned that I must not hesitate on approaching difficult subjects like money, and I believe this experience made me realize how important that is and that I must be self-confident so I don't get fooled again.

4 ABOUT MYSELF

By seeing how I reacted and the kind of problems and dilemmas I had during this project I learned a lot about myself and what I want for my future.

4.1 Dealing with the customer

PWN has its values, its mission and vision and I don't think they are compliant with what they preach. I felt exploited in this project. I felt my work was being valued but not my time and that they were taking advantage of my student-naivety and my need to fulfill the project for the Independent Studies subject. Two examples:

- **My time was not as valuable.** Thanks to this project, after the second sprint, I never got a weekend or even a day for myself and constantly delayed my thesis work. But when during a meeting I asked one of the PWN mentoring team members if she would be able to just fill out one or three application forms in the web application and share her opinion during the weekend, she laughed at me and told me she had better things to do on a weekend.

- **Aiding with boundaries or a controlled altruism**. In order to have a more complete web application it seemed only logical to me that the Mentoring Program should be clarified in a specific section of the web-app including the pre-requisites to participate like having 5 years of working experience or the (recently 50% increased) participation fee – 75 euros. However, and although these were exclusion factors, PWN said it wasn't important. This allied to the fact that the Mentoring Program is not to be publically advertised, not even in the PWN facebook page and that in a second selection there is a list of preferred companies who gives mentees a "free pass" to next phase. My guess is that not having their pre-requisites

written and accessible gives PWN freedom to choose whom they want without having to justify their preferences, building a not "openly-defined" elite.

I have difficulty in working for causes and people I don't believe in. In this particular project I wasn't being paid but I don't think that if I was my feelings towards this matter would change. I learned that maybe what I am looking for when the time comes for finding a job, instead of a great salary is somewhere where I believe in people above me in the hierarchy, my time is valued and I don't feel I am somehow part of some scheme to favor some over others. However, this will require some perseverance or maybe even for me to create my own company.

4.2 Dealing with Stress

I have difficulty in control my stress levels. I felt everything depended on me and that if for a moment I wasn't working on the project no one was and I needed to be. I believe this was because I worked alone most of the times and it was my first "real" project, for the first time something not being done or not being the best I knew I could make it wouldn't just be -0,5 points on the final grade but an issue on the final solution. I must learn to recognize my own limits in order to assure not only the quality of my work but my mental sanity.

4.3 The web is my oyster

On subsection 4.2 I state that I must learn to recognize my own limits, in this subsection I state that I now know that I am capable of doing a lot and probably a lot more than I thought I was. I not only learned by myself how to do it as I did in fact do it and I am happy with the result. I also know from the constant "I know there is a best and more correct way of doing this" dilemmas I had during the development that I have in me all that I learned in my course, when it comes to theory and good practices. I feel that it is almost against my values not to perform as best as possible and I think that was imprinted in me by Técnico. It gives me confidence on my standards and makes me feel like a valuable future-professional.

5   CONCLUSION

This was a very intensive and demanding activity, but I learned a lot. I learned things I thought I already knew and had problems I didn't even know I would have and I am happy it was before I started to look for my first job. Although it had its setbacks, a lot of tears and few hours of sleep nights, overall it was a good experience and I am glad I did it, I feel stronger, confident and more prepared for what's to come. In the appendix is replicated the testimonial (not translated) given by PWN that was sent to the coach team.

In this type of document (Technical), The Conclusion should start with a summary of the subject addressed and then should highlight the results.

6   ACKNOWLEDGMENT

I would like to thank to the Professional Women Network representatives for the opportunity. Professor Miguel Mira da Silva for the opportunity and all the guidance and good advise during the development of this project. Having the example of someone with his knowledge dealing with customers became easier. Professor Miguel Mira da Silva was never reluctant in interfering when either I asked or he felt was necessary. I owe him a great deal of learning and part of the self-confidence I got with this experience.

APPENDIX
PWN's TESTIMONIAL IN PORTUGUESE

"A Marta demonstrou grande capacidade de trabalho e proactividade. A sua capacidade organizativa, de mobilização de pessoas, de assertividade nas tarefas a desempenhar mesmo quando dependiam de terceiros foi relevante para a concretização do projecto. O desafio que lhe foi colocado tinha níveis de complexidade que foram compreendidos e a suas sugestões de melhoria nos processos foram relevantes. A sua capacidade de comunicação é boa e facilita o entendimento e a colaboração entre as apartes. A capacidade de estabelecer compromisso e de realização de tarefa foram marcantes. No geral, o trabalho com a Marta foi muito produtivo, obtiveram-se os resultados desejados e sem duvida a Marta foi uma mais-valia no processo."