System Development
LIA Report
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CÉGEP/COLLEGE

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Contents

Stages, phases, and steps

The project was broken into 7 different stages, and in each stage, we had to deliverable to submit. And each stage had been broken down into multiple phases. So here I will be discussing the steps we took as a team to complete these stages and phases.

Stage 1 (Deliverable 1: Project Plan):

Phases:

- Find a client and describe the client's business and needs.
- Describe how the team will be organized
- Form a project plan in the form of a Gant chart.

Steps:

For the first step of stage 1, we started by pitching out clients and seeing what we have. We concluded the first step by selecting Mary-Grace as our client. For our second step, we went over and decided how and when our meetings will down. We chose teams as our main communication and set up also a repository for the project. Finally, for step two, we divided the team so some will be in the front end and the others on the back end. For the final step, we developed a project using a Gant chart displaying all our tasks, the time it will take, the estimated time of completion and resources assignments.

Stage 2 (Deliverable 2: Client and business domain summaries, questionnaire):

Phases:

- Question client about the general function of the business and about herself.
- Describe the business domain and environment.
- Business Problem
- Write some open questions and a questionnaire for the client.

Steps:

In step 1 of stage 2, we came together as a team and questioned the client following provided questions from the project outline. We also took the last phase before meeting the client and asked our own questions that will help with the development of the project. In the second step, after some observations and research about the business, we wrote an in-depth description of its business environment and domain. And lastly, for the last step of stage 2, we wrote down the current problems that the business is currently facing.

Stage 3 (Deliverable 3: Use cases and UML Diagrams) :

Phases:

For stage three we had 6 different appendixes:

- Use cases
- Filled out use case templates
- UML diagrams
- A class diagrams
- A state chart diagram
- Copies of forms and other documents used by the client

Steps:

For this stage, instead of going through the steps together, we all decided to separate the work and assign a step for each person. Since we are 5, we left the last one alone since it wasn't too hard, and in the end, one of us we'll take it and just asked the client for any forms or documents.

Stage 4 (Deliverable 4: User stories)

Phases:

- Describe how we got the user stories
- List all user stories
- Provide two user story tests for each user story
- User story map

Steps:

For the first step, we went through it as a team, since it was asking how we got our user stories. So, we decided to go over the features with the client together. Now for steps 2, 3, and 4, we divided the work, 1 person would work on step 2, 2 people would be on step 3 and finally, 2 people will be on step 4.

Stage 5 (Deliverable 5: Prototype UI):

Phases:

- List 10 usability guidelines
- Develop the first prototype
- Present to client
- Apply changes to 2nd prototype according to client's comments
- Revised user stories
- Revised story map

Steps:

Since this stage was mainly UI/UX, the front people in the team will mainly take charge but the back end will also have stuff to do. Listing the usability guidelines, developing the first prototype, presenting it to the client, and applying changes based on the clients' comments were all taken care of by the front end. As for the back end, they will finish the steps by working on the Revised user stories and story map.

Stage 6 (Deliverable 6: Database design):

Phases:

- Create a data dictionary
- Create an ER diagram
- Descriptions of indexes and query optimization
- Explain the projected size of the database
- Explain access speed for the database

Steps:

For this stage, the backend was mostly in charge of it. The creation of the data dictionary, descriptions of indexes and query optimization, projected size of the database, and explanation of access speed were all taken care of by the backend. For the ER diagram, the front end was able to divide the work.

Stage 7 (Deliverable 7: Implementation and client comments):

Phases:

- Develop views
- Develop controllers and models
- Describe security measures
- Future work to be done with web application
- Revised user interface
- Printed version of the user guide
- Assign screen images to implemented user stories

Steps:

For this final stage, we properly organized the steps so that everybody could all equally have the same amount of work. For the development of the views, revised user interface, and assigning screen images of the implemented user stories, we're all taken care of by the front end. Developing the controllers/models, describing security measures, future work and printed version of the user guide are all taken care by the back end

Personal Challenges

For this project, there were not many challenges or problems for me as an individual, of course, there were times when the work appointed to me could sometimes be difficult or I was blocked. But, having a supportive team and putting in a little work could overcome little problems like those easily. But I would say the biggest challenge I have faced in the scope of this project would be time management. Since my time management was poor, it became hard to properly organize my work with other classes and my personal life. Most of the time, it led me to sleepless nights and missing class. This problem started happening more towards the end of the semester and made it extremely hard for me to properly get things done due to all the pressure. But eventually, I managed to deal with it and organize myself.

Team Challenges

Throughout the project, our team has come to face some challenges but, I would say the biggest ones would be handling the development and brainstorming of the calendar and payment features for the web app. At first, we already knew implementing the calendar could possibly be difficult for us, so it showed already within everyone a little doubt about going through with the calendar. We even decided on an alternative to not meet the client's request for a calendar if ever we were not able to. Leaving it last, we were stuck with the pressure on how we would implement it but luckily, after an amount of searching and digging through past notes from other classes, we eventually stumbled upon a JavaScript calendar that some of us developed in Internet Programming. After a few modifications to the code, the calendar is now working according to our liking and the clients. Another challenge we faced was the payment

method. Unlike the calendar, it wasn't too difficult to solve, but it was more once deciding what kind of payment methods to implement. Some of us just wanted to link PayPal to the web app and some of us wanted to do both PayPal and debit/credit payment methods. But after listening to the client's opinion, we decided to just go with the debit/credit payment and that we'll be using the stripe API to implement it.

Skills Used

In this project, I have used skills that I was able to develop in school. In terms of skills acquired in school, my proficient use of HTML and CSS helped a lot in developing the front-end aspect of the project quickly, and managed to finish my part in one day. This is all thanks to the Internet Programming class taken last semester. Another class that helped me develop a new skill would be E-commerce. In this class, I learned how to use bootstrap, which helped me speed up the process of developing the web pages, and PHP which helps me get a good understanding of the back-end part. One last skill that I would say was extremely helpful, would be my experience in graphic web design when I took a class for it at John Abbott. When it came to the Ui/UX design part of the project, I was quickly used to the controls and shortcuts of the app since it was like photoshop and owned by the same company (adobe).

What I've learned so far

I found this course extremely helpful in learning how to manage a business, project, and client. This course has thought me various techniques I could use to properly break down a project and organize the tasks. As for the clients, I have learned how to communicate properly and how live up to the clients expectations.

What I've learned so far working in a team

Working in a team has been a great experience for me which includes the positive and negative notes.

Experiencing this we'll prepare me for any career I will fall in because it is crucial in   most IT

companies. I now know that it is always important to communicate with your teammates because any

miscommunication or lack of communication could possibly lead to problems in the development

process of the project or even delay it. It is always important to have a good connection with your

teammates as it will lead to a successful finish of the project