

ENSE 405 Project report-out & lessons learned

Project name

Club Sleuth

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Project sponsor & course facilitator

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Business need/opportunity

As someone who has tried to look for the right clubs and now a member of a few clubs this software could have really helped me in some areas. It is quite difficult to look for clubs near my area that I wanted. Unless the city name is in the club name, more often than not, the club will not show up even when searched online.

The aim of this project is to help local users to find clubs that perfectly fit them but also help new clubs or struggling clubs to gain new members without having to commit to a full-blown website.

Reflections on project planning

I have selected the United Nations Sustainable Development Goals 10: Reduced Inequalities and 11: Sustainable cities and communities because it perfectly fits the project I had in mind at the time. Club Sleuth, aligns with SDG 10 reduced inequalities because it allows non-profit, smaller clubs to advertise themselves against the government backed, profitable, and more expenditure clubs in the area. It also aligns with SDG 11 sustainable cities and

communities because through this web application, I am hoping there would be an increase in people staying in their respected cities because they were able to find the right community/club for them.

From doing my community characteristics I was able to find a few key ideas that helped me understand what state the community was in. First off, the community itself was just in a state of forming. Meaning, although there were some, there were not a great deal of current websites, or applications that were doing what I wanted. Due to this being the case, I knew I had to mentally prepare myself for starting from scratch and having to do a large amount of planning and prototyping until I get it right.

I also found that the range of people in this community is very wide, so there is a variety of culture and age differences that I had to account for. Understanding that I have to take the differences into account, I decided to make it as simple as possible and the workflow easy to navigate and understand so that there would be no misunderstanding for all users.

In terms of community orientation, I find that any orientation would work in this community, except for service context and project orientations. Other than that, the lowest score I had was three in the community characteristics document. In terms of my web application however, I wanted to focus on specifically meeting, relationship, and access to expertise orientation as these orientation aligns with my web application more than the others. Meeting and relationship orientation comes hand-in-hand as people would use this application to meet new people in a new club/community as well as form relationships with them. On the other side, there are also people that would use this application to further gain skills and knowledge in a hobby/interests that they already have.

From the technology configuration inventory document I was able to clearly see what worked for other websites and what I wanted to change and bring over to my web application. With the current applications, there were a couple of features that Facebook and Discord that was doing so already. Mainly being able to separate communities in their own little virtual space and giving them the ability to advertise themselves as well as communicate with members. However, the problem I had with this is that it is not exceptionally casual friendly. Facebook for example is notoriously known for its heavy use of your privacy, and both Facebook and Discord are not the easiest to comprehend how to use. Knowing this, I aimed to simplify the workflow of my web application so that it would not have these problems.

In my personal opinion, this documentation process was not necessary for the project. It took huge amounts of time away from development and I believe some of these were pretty common sense to do, like researching what current technology is out there and what I can take from them. In saying this, however, I think it did help me a bit in understanding why I am doing this project and who I am doing this for.

My selected north star and carry over customers are local club owners and club members. They are the ones that are going to primarily use the web application, club owners being specifically essential as without them registering their respective clubs, the application would be therefore useless as there would be no clubs to be searched and interact with. When it comes to assumptions and constraints, before even making any development, I knew club owners were gonna be a constraint because of the reasons mentioned above. Time was also a constraint on my part since unexpectedly this semester was my hardest semester yet when it

came to workload. I also made the assumption that mobile view was going to be essential due to the variety of users I was trying to target.

There was no debate on my part that I was going to use the Mongo, Express, React, and Node (MERN) stack since I just got off a work-term using this stack and I quite enjoyed it. Due to time, I completely skipped low-fi prototypes and directly went into medium to high-fi prototypes with figma and gathered feedback as well as adjusted it as I went. For my first minimum viable product (MVP 1), I wanted the basic functionalities to be done, that means being able to search for clubs and look at their information and club owners are able to log in and add/edit clubs. For future MVP 2 I had planned I wanted it to be more of a digital habitat, so club members would also be able to log in and join their clubs as a member and therefore be able to chat with other members as well as have more gamification elements that would intrigue them to participate more in club activities.

Reflections on project results

At the end of this project deadline, although I did not get to finish everything I wanted to get done, I did finish every core functionality that I thought was necessary for this project. First off, users are able to search by location by entering their province and city as shown in figure 1.0.

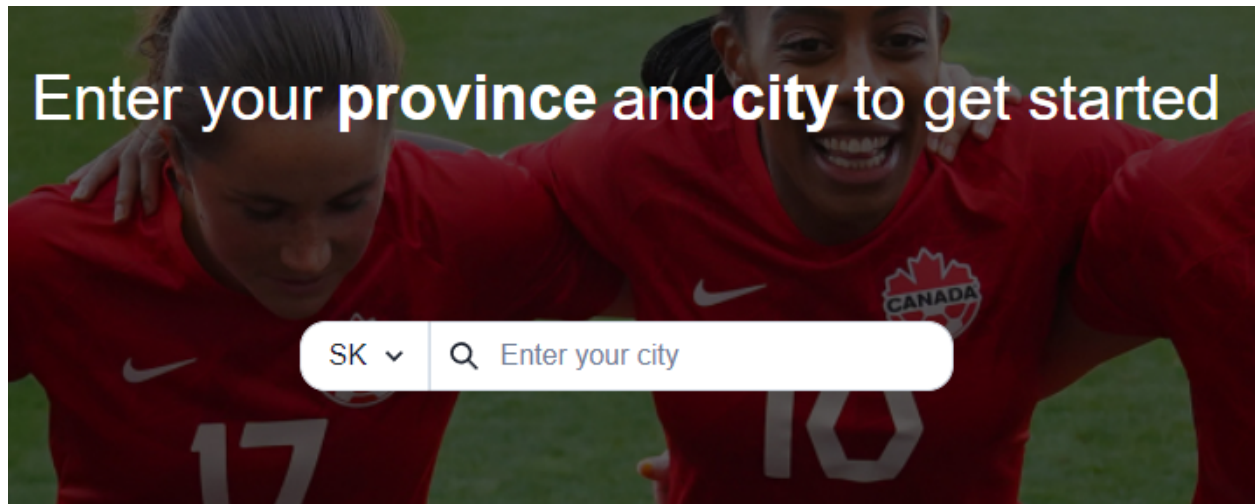


Figure 1.0

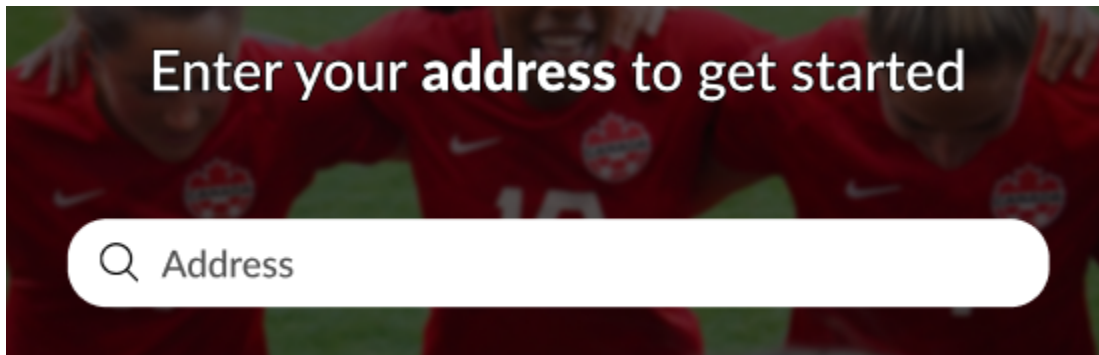


Figure 1.1



This may be different from my initial project planning as I initially wanted it so users can simply auto-complete their address like shown in figure 1.1 and the backend would take their city from it, but my implementation also does its job quite well. Next, users are able to look and search for existing clubs that interest them in their area. Initially, I wanted to have some kind of filter system just like shown in figure 2.0 making use of categories and sorting, however, I wanted to reduce the complexity to give myself more time to finish other functionalities and I planned to come back to it if I had more time at the end.

Sort by ▼

Categories:

- ☐ Arts & Crafts
- ☐ Theater
- ☐ Sports
- ☐ Entertainment
- ☐ Vehicles
- ☐ Literature

Regina Book Club

 10 - 20
  Casual
 Active

"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat ...[see more](#)

Regina Book Club

Sort by ▼

- ☐ Arts & Crafts
☐ Theater
☐ Sports
☐ Entertainment
☐ Vehicles
☐ Literature

 10 - 20 Casual **Active**

Regina Book Club

Figure 2.0

Regina Mandolin Orchestra

<https://www.mandolin.ca>

REGULAR PROGRAMS

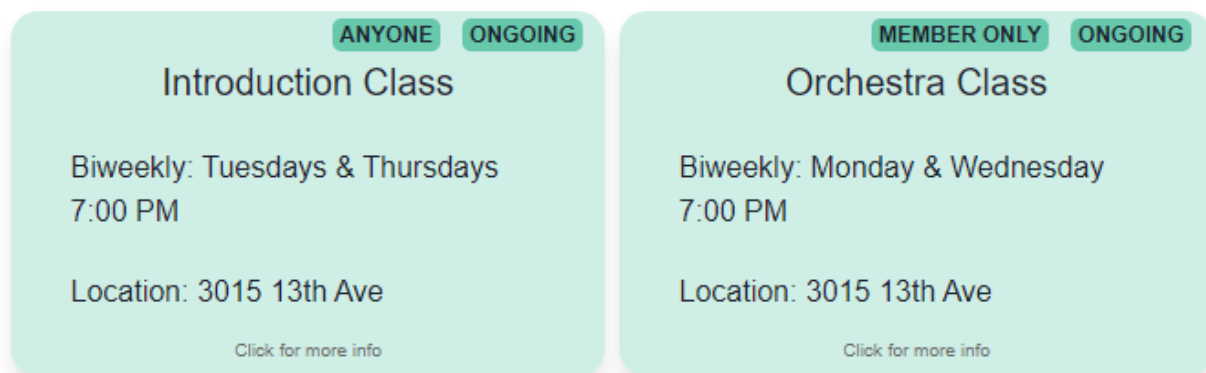


Figure 2.2

Introduction Class

Biweekly: Tuesdays & Thursdays 7:00 PM
Location: 3015 13th Ave
Fee: \$100

Figure 2.3

Lastly, through the concept of separating content and people components, I enabled users to add and edit clubs through a dedicated page locked through a sign in/sign up as shown in figure 3.0. With the separation of the user side and the club management side, regular users are not interrupted while looking and searching for clubs simplifying the workflow. Additionally, by adding this functionality, users can add and edit their clubs freely as well as make the website less dependent on administration. During the process of developing this functionality, I used the concept of rhizomatic learning as I went through a couple of different designs for this page. Initially, I had planned, studied, and acted on having editing/adding regular programs and future events separated from editing the club descriptions and details, however, upon trying it

out I found that the extra clicks were very redundant and decided to put them all in one view. I was satisfied until I had a couple of friends try out the application. They gave me the feedback that having them all in one view makes it a little bit too congested, which made me do a double take, and from further inspection, I also agreed. However, this was too close to the deadline for me to change unfortunately.



CURRENT CLUBS							
NAME	PROVINCE	CITY	MEMBERS	COMMITMENT	ACTIVE		
Regina Book Club	SK	Regina	20+	Casual	ACTIVE	Edit	Delete
Regina Sports Club	SK	Saskatoon	10-20	Casual	INACTIVE	Edit	Delete
Regina Mandolin Orchestra	SK	Regina	20+	Intermediate	ACTIVE	Edit	Delete
Wascana Badminton Club	SK	Regina	20+	Casual	ACTIVE	Edit	Delete
RRUFA	SK	Regina	10-20	Casual	ACTIVE	Edit	Delete

Figure 3.0

Overall, this project went pretty well in my opinion. Although it was stressful due to the time restraint, I actually quite enjoyed working on this project as I was interested in the idea in the first place and wanted it to work. Project planning went smoothly and prototypes went smoothly, and I thought I had pretty good ideas for the web application. The implementation did require some time, but overall there were not many big problems. One problem was I initially planned to have Google Places API in my application but due to this being an open-source project and the API requiring payment, I did not go through with it. In the future, with more experience under my belt, I would keep using MERN stack as it's quite flexible and easy to use, with a huge amount of support online. I would also ask for more feedback from my

customers as I don't think I did that enough until the end. For future work on this project, I want to add images and videos on club pages, as well as having the ability to add educational learning by collaborating with universities or lower level schools. I think this project can be a real website, and I am planning to make it work if I have time in the near future.

General reflections on the class & project experience

Before taking the class, I was not aware of the United Nations Sustainable Development Goals. I was vaguely aware that there were some world wide goals that the UN was aiming for but did not know the specifics of the goals itself and what they were called.

Before taking this class, whenever I had to think of engineering a software solution I was not concerned much about areas encompassing the UN SDGs. My very first work-term was a startup that dealt with managing crops in farm silos. It was a website and phone application that allowed farmers to look at the temperature and moisture of the crops inside the silos. By being able to monitor the temperature and moisture, the farmers can know if the crops are going bad and act accordingly to get it back in a good state. This work can encompass the UN SDG 2: Zero hunger and SDG 12: Responsible consumption and production. The solution aligns with zero hunger and responsible consumption and production as the engineered solution makes it possible that the crops in the silos are always in a good state. Which means that the crops will always be edible and sellable at the end of each harvest.

Learning about the UN SDGs did help me understand more about the role and responsibilities I have as a software engineer to society. It helped me understand that I can't just focus on finding the solution to the problem given. I have to think about the bigger picture

and encompass as many solutions into one as possible. Just because one solution solves one thing, doesn't mean it can't solve another.

In my experience of engineering my software solution to address the UN SDGs, I thought that it went pretty well. It was hard to come up with an idea that wasn't out of scope for this class as all the SDGs looked at the world as a whole, not from a fourth year engineering student, but I think it worked out well for myself. Sometimes the goal of aligning the solution to the SDGs got lost in the midst of developing for the sake of getting the functionalities working, however, the scrums and documentation helped to get me back on track.

As a future engineer, I think the UN SDGs are definitely necessary to think about while coming up with engineering solutions. First and foremost we are humans, and at the end of the day we are still going to be humans. So in my opinion, it's important to consider these UN SDGs not only to help ourselves but to help society and the whole world as a whole. On the other hand, I can see why having to align our solutions to the SDGs can be a hindrance to the solution. Not all solutions can be aligned to the SDG goals and not everyone has the additional mental capacity to think about such goals. Although unfortunate, there are just some circumstances that do not allow an engineer the ability to think about the UN SDGs, having said that, at the end of the day, I do think it is important to align the solutions to the UN SDGs as much as possible.

For the average person, work is always going to be dependent on customer requests regardless of the UN SDGs. In my opinion, it is up to the people with real influence that need to guide the work for the average people to align with the UN SDGs. However, we do still have our voices, so although we are largely dependent on customer requests, we are able to give back

opinions and convince them to consider aligning the requests to the UN SDGs. If we don't voice it out loud then it won't ever be considered, it's important to be proactive in this case.

I will maybe use my understanding of the UN SDGs in my engineering solutions in the future. If I am able to use it, I don't see why I would not use it, however, at this moment of time, I have too much going on in my private life to be actively seeking out a way to use my understanding of the SDGs unless it comes to me naturally. This also goes with my career path decisions. Unfortunately, I am not in the position to be able to pick and choose my career especially as someone who has not even graduated yet. All I can think about at the moment is getting into a good company and building my career from there. If I am able to pick and choose I think I will consider if there is a little bit more focus on the UN SDGs, however, that's only if I am in the position to do so.