

# Personal Reflection

## Collaborative Application Development (CSC-40038)

Our group, team-4 consisted of 5 individuals, our goal was to analyze and present the most important business insights for the client. Our client is the CEO of a company, BookMeIn2, that organizes and promotes conferences and related exhibitions. His aim was to see if the data analysis would help his events be more successful, particularly in terms of selling sponsorship. The goal of this report is to provide my thoughts on our group project. In this report, I will talk about my experiences with our group's work structure, Client interaction and how we managed our group's work.

It was a novel experience for me to work with people who come from diverse backgrounds. We interacted with team members and came to know everyone's domain knowledge and experience level. Our team consists of 3 members who are confident in their technical expertise and 2 members were from less Computer Science background. So initially we divided the roles based on technical and domain knowledge. Since it is a novice experience in doing a data analysis project, later we all decided to take Data analyst role, so that we can all learn the end-to-end process. We exchanged phone numbers and created a WhatsApp group as well as a Teams group for communicating with each other. We also talked about what must be done for our group assignment. On the project, everyone gave their own thoughts. In the end, we decided to split and answer 10 questions that the conference organizers are seeking. Our objective is not limited to these questions alone. But also finding missing data as well as detecting the trends and pattern in the provided data.

During the initial phase of the project, our client provided a brief as well as a detailed explanation of the problem statement and requirements. Following the client's briefing, we were given the opportunity to ask questions and clarify the underlying concepts. Interaction with the client was an amazing experience. When we shared our thoughts and understanding about the requirements, he listened to it wholeheartedly and answered our queries in an incredibly positive way. After the client interaction we were really motivated to work to reach his goals. Following that, the client visited in weeks four and eight. We took advantage of this opportunity to learn more about business aspects and checked a few queries and provided suggestions to client which were found during the analysis process and confirmed our analysis and progress were on the right track. As per the client requirement we decided to use a presentation approach rather than web application development.

Initially we did not nominate a leader for the group as we all felt it was unnecessary for this task and no one was willing to take the role. But that was a mistake, at some point it was crucial to lead the group in the right direction, So I acted as the leader. I have worked as a System Engineer for an IT Firm, and I was the team lead there. So, my experience from my past company had helped me to commit to this group project professionally.

We decided to use Agile methodology for this implementation. So, following Agile methodology, we split task goals and assigned them to individual team members and grant the freedom of analyzing the data and detecting amazing trends. I acted as the scrum master and managed the team. I ensured that the team members are on the right track to achieve the goals. We scheduled scrum calls and team meetings based on the availability of every team member. We all agreed to meet twice a week to discuss the progress and status of goals assigned. We did a combination of both physical and virtual meetings. During the meeting we provided everyone the opportunity to share their thoughts on the assignment. Our goal was to come up with as many different useful patterns in the data as possible. We carefully listened to all the ideas and

then listed them for future reference. After each meeting we wrote the minutes of the meeting and shared them with the team. If anyone of the team members has encountered any problems which hinder their analysis, we used short meetings to rectify them.

During the group project period, we faced several hurdles to clear. The group work was a little delayed and some work was postponed while we were working out the task and attempting to figure out everyone's function in the group. We got stuck at solutions or feasible strategic solutions after analyzing the data. Because most of the details were missing in the data as part of the data anonymization. This issue was causing our group's progress to be slower than intended. Initially, we struggled with the participation of the team members. Few members were absent from both physical and virtual meetings, and this had brought some tough times in making group decisions and keeping the morale of the group. I felt this was also a kind of real-world experience that we needed to overcome. So, we made judgements based on the outcomes of the existing team meetings. Thankfully, it was not a long problem, later they arrived and made their contribution to the team.

Since it is a Data analysis project, we tested the accuracy by performing other teammates query ourselves and validated that we are getting the same results. We did some effort to investigate the crucial missing data in the DB. Because it was also a requirement for the client. Since they are collecting a bunch of event details data for analyzing the patterns and trends, then they do not want to miss the relevant features. By analyzing the database, we all agreed that feedback data was critical data, and it is missing in the system. As a recommendation for future scope, we suggested client to collect feedback data, so that we can perform sentimental analysis, because the feedback data contains strong positive and negative words and thereby, we can measure user satisfaction.

We joined together and created a simple template for our presentation. We all agreed to go with Jupyter notebook files or Python files and can use the visualization graphs generated from it to do the presentation. We shared the presentation template and python notebook file template that we created in the files section of Team channel. Later we updated our contributions in the devised templates. When we were updating the templates, we used standard file versioning techniques, i.e., when we upload our contributions, we create a new file with latest version numbers on the filename, so that, we can ensure that the data is safe. We all validated our results generated from the jupyter notebook files by running and testing it from our individual machine too. Before the presentation day, we all agreed to highlight the most trending pattern and decided to omit some trends which we all felt were not irrelevant to the actual goal of the project. We decided our presentation order too. On the day of the presentation, we presented well. Our client was satisfied with our results and suggestions. He provided feedback also to us for our future reference.

In conclusion, by answering the questions that the conference organizers are seeking We have found some trends and relationships among the variables in the data. Also, we suggested a few solutions for business insights. Because based on the trend, for better participation, it is evident that clients must focus more on event reminders. This project taught me a lot. It was an amazing experience to work as a team to provide business insights and recommendations for actual clients using the real data gathered from users across the world. Our group worked extremely well together. Everyone voiced their opinions, and none were met with hostility. Collaboration improves how our team works together and solves problems. This results in more innovation, more efficient processes, greater success, and better communication. What counts most at the end of the project is what we have learned through our group work experience. Situations arose during our time together that put us to the test in terms of making judgments and dealing with pressures and exceptions.