Reflection

The most important things I learnt:

In this unit, the most important things I learned were how to design a database to meet the needs of a client and how to use industry-standard tools like Confluence and Jira to collaborate effectively.

For database development, I learned that the stages included are: Planning, Requirement analysis, Conceptual design, Logical design, Physical implementation, Rollout, and Maintenance. I also learned techniques to normalize my data and speed up my queries.

For collaboration, I learned how to use Confluence as a single source of truth for my team. We used Confluence to document our progress and reflections. I also learned how to use Jira to manage tasks for my team and how to divide our progress into sprints.

In addition, this unit has also given me the opportunity to broaden my software development knowledge with a website project built on top of the main database.

The things that helped me most were:

Things that helped me were the assistance from my tutor and the independent learning materials on Canvas. My tutor provided my team help during class, which allowed us to better complete our tasks and assignments. The learning videos on Canvas were very insightful and helped me prepare for the lectures in advance.

I found the following topics particularly challenging:

In week 4 we learned what personas and empathy maps were and why they were needed. I found it challenging to come up with personas that accurately depicted our customers. It was even harder to get into their heads and predict how they would feel using our products.

I found the following topics particularly interesting:

In week 9 we learned database indexing, which was a concept I had been familiar with but never quite understood. Initially, I thought that we could add indexes wherever we wanted to speed up queries. However, this unit has taught me that indexes come with costs to write and update operations and that careful evaluation is needed before adding indexes.

I feel I learnt these topics, concepts, and/or tools really well:

I find that I have learned how to use Confluence and Jira for collaboration quite well. As the team leader, I am responsible for managing our Confluence space and Jira board. I have been able to organize documents and tasks quite well for my team to navigate Confluence and Jira.

I also think that I learned database design really well. This unit has encouraged me to read a lot about MySQL, particularly about indexes. During the design process, I had to run a lot of experiments to check the effectiveness of indexes, which I thoroughly enjoyed.

I still need to work on the following areas:

While I have grasped all the concepts presented in this unit well, I still need to work on my skills designing personas and empathy maps. As mentioned previously, I found it hard to get into the minds of potential customer groups to design the product appropriately. Since we only spent one week on these concepts and they were hardly mentioned afterwards, there was not enough time to fully work on them.

My progress in this unit was ...:

During this unit, I met deadlines most of the time. However, around the middle of the semester, I missed one or two deadlines due to conflicts with other units. Thanks to the help

of my teammates, I was able to catch up with my work and get back on track. As the team leader, I also had to assign tasks to my teammates and make sure they were on time. I was able to do this by using Jira and communicating with my team frequently.

This unit will help me in the future:

This unit has taught me how to collaborate professionally on a technical project using Confluence and Jira. As these are widely-adopted industry tools, this unit will make me a more adept team player in the tech market.

I have also been able to experience agile development for the first time in this unit. In this working style, the project is divided into sprints which deliver the final product incrementally. I find this style to be very useful in software development because it can deliver business value more quickly than traditional development.

This unit has also showed me the proper steps to create a professional relational database. Whereas before I used to quickly dive into writing SQL, I have now learned to adopt a more strategic approach involving determining the entities, relationships, data types and considering aspects such as (de)normalization and indexing.

If I did this unit again I would do the following things differently:

In this unit, I am most proud of the teamwork process. My team was able to foster a very comfortable and pleasant collaboration environment where team members could communicate their suggestions, needs, and difficulties. In retrospect, however, we did not work as closely with our tutor and lecturer as I had wanted. If I took this unit again, I would make sure to get feedback from my tutor/lecturer more frequently to check the team's work and make changes as necessary.

Other:

None.

Self-Assessment

Contributing to the Team's Work

High: I did more work than was expected of me, especially in regard to organizing the team's Confluence page, building the backend of the website, and designing the database. I always strived to deliver work at the highest quality, which is reflected in my output. I also helped my team complete their work. For instance, during week 8 where we wrote the SQL statements corresponding to the use cases, I helped my teammates better understand the database structure and design the queries accordingly.

Interacting with Teammates

High: As the team leader, I was responsible for important communication within the team. Whenever I announced tasks, I always made sure to word my messages as informatively as possible so everyone on the team could understand what I wanted them to do. I was respectful to my teammates and always made sure they were heard. I valued the feedback from my teammates and considered them when making decisions and allocating tasks.

Keeping the Team on Track

High: As the main task assigner and the person driving the project, I always made sure that my teammates were on track. However, acknowledging the fact that they had to juggle three different subjects at the same time, I had to be careful not to overload them with tasks. I was understanding when they expressed difficulties completing deadlines and assisted them whenever I could to prevent the team from falling behind. I also gave my team constructive feedback every time they submitted a task to me.

Expecting Quality

High: Being someone with very high work standards, I found it important that my team deliver high quality work. While maintaining the Confluence space and Jira board, I insisted that my team follow consistency. I encouraged my team to write clean code for the website and pushed for a clean UI design on the frontend. I helped my team to achieve high-quality work by motivating them to learn the skills and knowledge they needed, providing assistance along the way.

Having related knowledge, skills and abilities

High: For this project, I brought a variety of skills to the table, including database design and full-stack development. While I work predominantly on the backend, I also had to work a little on the frontend to ensure both the frontend and backend are compatible. I made important contributions to the database and prepared it for completion. I also learned how to use Auth0 to provide the website with user authentication.

Did you participate in a process of performance improvement of a teammate?

All my teammates performed quite well in this unit. They were able to deliver satisfactory output to the assigned tasks. Nobody underperformed and no performance improvement plans were necessary. I only had to ocassionally help teammates who were stuck, but they were able to quickly get back on their own feet.

Assessment of teammate Nguyen Quang Huy

Contributing to the Team's Work

High: Huy delivered very high-quality work for the database, backend, and Confluence space. He was responsible for preparing the meeting notes and recording meeting actions and decisions, which he did fantastically. He was very helpful to team members and assisted them whenever possible.

Interacting with Teammates

High: As the team's note-taker, he was responsible for reiterating team decisions to members. He was always available for communication and provided invaluable feedback to the team. He also attended team meetings regularly and encouraged us to work harder.

Keeping the Team on Track

High: During the second half of the semester, I appointed him as my assistant project manager as I was having some issues with other subjects. He was very responsible and made sure the team stayed on track whenever I was not available to remind them of deadlines.

Expecting Quality

High: Huy set the bar high for his work and expected members to do the same. His work on the backend showed a great deal of care and effort. The meeting notes he wrote were clean, organized, and very informative. Huy believed in all of us and encouraged us to continuously learn and improve.

Having related knowledge, skills and abilities

High: Huy made many important contributions to the database and the backend of the website (the interationalization feature for example). While his work mainly focused on the backend and database, Huy also brought frontend skills to the team. He offered many useful suggestions for the frontend team to better their UI design.

Assessment of teammate Nguyen Tran Quang Minh

Contributing to the Team's Work

High: Minh contributed to the frontend, database design, and Confluence space. He delivered quality and timely output that enriched the project. He was very helpful to his frontend team, offering feedback and advice whenever possible.

Interacting with Teammates

High: As a meticulous frontend designer, Minh always made sure to reach out to other members for feedback on his own design. He was always available for contact and expressed a great deal of interest and enthusiasm to the project. He was an encouraging member who offered praise to members on work completion.

Keeping the Team on Track

High: Minh hardly missed a deadline and cared greatly about the progress of his fellow frontend teammates. He always reached out to them to ensure that they were not falling behind and provided them help if needed. While not directly responsible for the backend, he also showed considerable interest in the backend team's progress during meetings.

Expecting Quality

High: Minh cares deeply about his work output and this is reflected in his clean UI design. He assisted me in keeping the Confluence space easy to navigate for the team. He was very supportive of his fellow designers and pushed them to create clean designs for the website.

Having related knowledge, skills and abilities

High: Although he specialized in frontend design, Minh could work on the backend if needed. The team decided that he would work on the frontend because he had a keen eye for good design. For this project, he was very willing to learn Bootstrap to style the website, a library that he had not been familiar with at the start of the unit.

Assessment of teammate Tran Hoang Hai Anh

Contributing to the Team's Work

High: Hai Anh was responsible for the frontend, part of the database design, and the Jira board. He delivered his submissions on time most of the time, only missing the deadline once or twice. His work was done at a very high level, and he helped organize the Jira board so that it was easier to work with. He was willing to help other members when his work was finished to speed up the process.

Interacting with Teammates

High: With his humor, Hai Anh was able to foster a very pleasant collaborative environment among the team. He stayed curious throughout the process and showed interest in areas not part of his main responsibility. He frequently attended meetings where he asked other teammates for feedback on his work.

Keeping the Team on Track

High: As one of the people organizing the Jira board, Hai Anh was aware of what each member had to do. Even though it was not his main duty to manage the team's progress, he always made sure to ask members if they have completed their allocated tasks. During the project, he observed the team's progress and made suggestions during meetings to adjust the workload as necessary.

Expecting Quality

High: Hai Anh was very passionate about his frontend design and always reached out to other teammates for feedback on his designs. He made sure Jira issues are clearly worded and organized so that the team could have a better collaborative experience. He firmly believed that we should all try our best to deliver the best possible product.

Having related knowledge, skills and abilities

High: Hai Anh had both frontend and backend knowledge and could work as a backend developer if the situation called for him. Despite having less experience than the other members, he was highly eager to learn new technologies to enrich the project. He was very open to new ideas and feedback throughout the project. Additionally, Hai Anh was adept at looking for information online for learning.

Assessment of teammate Phan Sy Tuan

Contributing to the Team's Work

High: Tuan contributed to the frontend, database, and Jira board. He delivered high-quality output at a relatively fast pace. Tuan helped organize the Jira board along with me and Hai Anh and designed several of the website's pages. He was very helpful when other teammates encountered difficulties, especially ones related to the database.

Interacting with Teammates

High: Tuan attended team meetings regularly and keep frequent contact with teammates. He was very invested in the team's work and cared about other teammates. He frequently asked for feedback while also providing some feedback of his own. During meetings, Tuan often brought up insightful questions that encouraged discussion and thinking.

Keeping the Team on Track

High: As a member maintaining the Jira board, Tuan was aware of the tasks remaining in the backlog. He often asked members about the progress to give everyone a little push. He helped the other members to speed up their progress and suggested changes in the workload during busier times of the semester.

Expecting Quality

High: Tuan had unwavering faith in the team and believed in everyone's abilities to deliver the best possible product. He himself produced work of very high quality and his frontend designs are very elegant. He also made meaningful contributions to the database design (especially the use case queries). Throughout the process, he was very encouraging and supportive.

Having related knowledge, skills and abilities

High: As with the other team members, Tuan also had both frontend and backend knowledge. Although slightly less experienced, he made up for it with a curious mind and passion for learning. He was not afraid to make mistakes and reach out for help when needed. Together with his fellow frontend designers, he learned Bootstrap, an unfamiliar territory for him, to work on the frontend.