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## Individual Reflection

A capstone project is the culmination of a university education, providing students with an opportunity to apply academic knowledge to real-world problems and collaborate to find solutions. When I first started the capstone project, I had little understanding of its true meaning. However, I now have a deep understanding of what it is and its significance to us. One of the most important lessons I learned was the value of teamwork. This project emphasized the importance of working together, relying on each other, and striving towards a larger goal, rather than simply testing individual abilities. It highlighted the importance of communication, without which our team would not have been able to move forward. Effective communication with team members enabled us to overcome difficulties, understand each other, and work together towards a common objective.

Our deliverables were data extraction tool and a curriculum that would help Schmidt Center students gain a deeper understanding of and learn about air quality. While these deliverables had inherent value, their true worth lay in how they benefited the students. Our goal was to help students understand the importance of air quality, raise awareness about it, and generate interest in the subject. Our data extraction tool and curriculum were designed to support this goal, making it easier for students to comprehend the topic. This is why our deliverables were valuable, they provided practical assistance to students and offered them opportunities to understand and learn.

During the project, I realized that if we had communicated more systematically from the beginning, we could have made progress more efficiently. There was another team working on a similar topic, but we didn't communicate much with them during the initial stages of the project. However, as we reached the middle of the project, we discovered that our teams had similar directions, and as a result, our team had to adjust its course. This process was challenging and required time and effort. But this experience made me realize the importance of systematic communication in the early stages of a project. If the two teams had communicated sufficiently about the project direction in the beginning, we could have avoided such confusion and progressed more efficiently.

I believe I can share my work on my project in the interview. The experience of this project could serve as a good example of how one can successfully lead such projects through various roles. The curriculum and data extraction tool created by our team, especially the data tool I worked hard on, can demonstrate my strengths during interviews and show how I contributed to the project.

The biggest challenges in this project were communication and lack of information. As our team consisted of individuals who were working on a project together for the first time, we faced difficulties in task allocation and meeting scheduling. However, we overcame these issues by utilizing applications like Discord for communication from anywhere at any time and using when2meet to share our available time slots. Additionally, as we had no prior experience in creating data extraction tool and curricula, we initially struggled with understanding the

format. However, through close communication with the client, we obtained the necessary information and resources to address this issue. This experience reiterated the importance of communication for us and will be helpful in our future professional careers.

Looking ahead to future capstone projects, I believe continuity is crucial. If future teams build upon our project to further develop it, it will be important to manage the dissemination of the materials and code we created effectively. Additionally, I believe it is important to consider not conducting similar topic projects within the same class. This is because it can lead to similarities or overlaps in the deliverables of different teams, making it difficult for the audience or clients to recognize the differences. It could also cause confusion among the teams themselves.

I don't have any uncertainties or misunderstandings about the topics covered in this project.

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Throughout this project, our team worked smoothly without significant friction during the project. We all made efforts to understand each other and collaborated for better results. However, during TA and IPR sessions, I noticed a tendency in our team and other teams with similar topics to emphasize the differences between our projects. There was also a tendency to highlight individual opinions. However, I believe that this was a challenge to provide better results to each other, and ultimately, it helped improve the project.

The culture, society, and economic factors of the region where the project is conducted can have an impact on the direction and outcomes of the project. For example, in Korea, there is a different perception of air quality and its importance due to the yellow dust originating from China. In such cases, there may be a need to adjust or modify the project's goals and direction. Additionally, the backgrounds and experiences of the individuals participating in the project can also be significant. If there are team members who have attempted similar capstone projects or have experience in creating curricula, it is possible that their personal experiences and the outcomes could be different.

In conclusion, I have learned important and diverse things through this project. The experience of overcoming difficulties through effective communication with the people I worked with, as well as presenting our deliverables to clients and the effort put into creating deliverables, can greatly benefit my future professional work.