Part One:

Have you changed your career plans? If so, what prompted this change? If not, why have you remained with your original plan? At the beginning of my Computer Science program, I was going through different career options, and different paths that I could take, such as software development and database management. I didn't shy away from any of the fields because I knew that there were many respective qualities about each of those fields. However, as I progressed more, I felt that I had developed more of an interest in data, and in particular, data analytics. Considering that it has strong real-world applications, strong job market and it can align with qualities that I was enjoying in my education, problem-solving and data management. My decision to pursue this field was influenced by many different factors: I had done coursework in SQL, Python and big data tools which helped my technical skills, I had a growing interest in data because it could do an array of things such as support businesses and the decisions they make, and I also knew that it could be a, more or less, stable career choice. Though I initially thought that my career plan would involve a bigger focus on engineering, I think the coursework and my goals appropriately align with becoming a data analyst.

How has your thinking about your career evolved? At the start of my program, I genuinely thought that Computer Science would be solely programming-based, and that almost pushed me away from this field, because I found coding to be difficult, and I still do so, to this day. However, as I went through and experienced more courses and different types of areas in Computer Science, I began to work with databases, data structures and algorithms, where I realized that data-driven decision-making is such an important factor in many different industries and it could support me in the long run. My thinking had evolved from just thinking that writing

code is all there is to the field of Computer Science to being able to understand that things such as data could help businesses, users and help develop better innovations. I have also started to appreciate different factors that go into data, such as statistics, machine learning, etc. These concepts are slightly beyond and different from the traditional software development, and my goal now is to be able to utilize all these skills and use them to my own advantage.

Have you completed any research about your choice of career? How has this impacted your thinking? Have you thought about seeking an advanced degree or certification after earning your undergraduate degree? I have conducted thorough research on the different implications that being a data analyst would entail, the different responsibilities, required skills and the industry demand. I was able to find that: data analysts need a strong sense of SQL, Python and different technical skills, which have aligned with my coursework in the past. I have also learned different salary points for entry-level data analysts, and they would be able to earn competitive salaries. And it has come to notice that data analysts are being looked for more in the job field because of the high demand. Through this, I am planning on attaining and improving different skills that will be beneficial for myself and factors that could improve my career. Resources such as certifications and possibly further education could support my growing foundational knowledge in data analytics.

Which course outcomes have you achieved so far, and which ones remain? I think that I have been able to demonstrate proficiency in a few of the course outcomes such as:

- Professional-quality communication: I think I was able to deliver technical reports and presentations on software and database solutions.

- Designing and evaluating computing solutions: By implementing optimized algorithms so that I could improve the program efficiency.
- Applying innovative computing: I developed a pretty database-driven application that functions around a database system and a goal.
- Security mindset: I implemented data validation and encryption techniques that could enhance the levels of security.

I do think that I have improvements that must be made, for example,

- Advanced security practices: I should delve deeper into gaining a better understanding of cybersecurity threats and mitigation strategies that could protect my program.
- Scalability in computing solutions: I have to work on improving my abilities in optimizing large datasets and managing performance trade-offs.
- Refining collaborative strategies: I know that there has been limited use of collaboration on this project, and I know that there can be vast amounts of improvements if I am able to have a second opinion.

Part Two:

Checkpoint	***Software Design and Engineering***	***Algorithms and Data Structures***	***Databases***
Name of Artifact Used	Animal Shelter Database – web dashboard	Animal Shelter Database – data processing & retrieval	Animal Shelter Databases – MongoDB implementation

Status of Initial Enhancement	Developed a Dash-based interactive dashboard for data visualization	Implemented a search and filter system to have animal retrieval	Designed MongoDB schema to efficiently store data
Submission Status	Submitted	Submitted	Submitted
Status of Final Enhancement	It is supposed to enhance user interface and the experience	Optimized the query execution time	Improved the indexing strategies
Uploaded to ePortfolio	Yes	Yes	Yes
Status of Finalized ePortfolio	In-progress	In-progress	In-progress

I chose to focus on one artifact because I felt that trying to focus on multiple was impacting the quality and the sufficiency of my work. I think that the Animal Shelter Database coursework is an artifact that could represent the different skills that I had practiced throughout my education, and one that could use great amounts of enhancements on.