Professional Self-Assessment and Capstone Summary

# Part One: Career Reflection

Throughout my Computer Science program, I developed a full-stack understanding of technology—from backend logic to user-facing insights. One of the highlights of this journey has been integrating Power BI into my final capstone project. It gave me the opportunity to present analytical results in a clear, business-friendly format and taught me how to turn raw data into visual narratives that decision-makers can act on.

In the Customer Churn Analysis Project, I built a Power BI dashboard to complement my backend work with SQL and Python. The dashboard visually summarizes churn rates, customer behavior trends, feature distributions, and predictive insights. This not only showcased my technical ability to process and model data but also my skill in designing intuitive, interactive dashboards that communicate complex patterns in a digestible way.

The creation of this dashboard emphasized the importance of user empathy—thinking not just as an engineer, but as a storyteller. I designed the visuals to highlight KPIs that matter to stakeholders, such as churn rate by region, contract type, and service features. Incorporating slicers, dynamic filters, and drill-downs brought a new dimension to how I thought about interactivity and engagement with data.

## Career Planning Questions

1. Have you changed your career plans?

Yes. Initially, I was focused on traditional software engineering roles. But after gaining experience in data visualization using Power BI, I discovered my passion for transforming data into insights that support business decision-making. I’m now targeting roles like Data Analyst, BI Developer, or Analytics Engineer.

2. How has your thinking about your career evolved?

I now see the value of being a hybrid professional—someone who can handle data ingestion and modeling (Python, SQL) but also tell the story (Power BI). It’s not enough to build models; it’s critical to communicate insights in ways non-technical stakeholders can act on.

3. Have you researched your career path or considered further education?

Yes, I’ve identified certifications that complement this hybrid role, such as the Microsoft Certified: Power BI Data Analyst Associate and Azure Data Engineer Associate. I’ve also explored industry forums, LinkedIn job postings, and connected with professionals who have made similar career pivots.

4. Which course outcomes have you achieved so far?

All major course outcomes have been achieved, including:  
• Designing scalable computing solutions.  
• Building secure and maintainable code.  
• Communicating effectively using technical and visual mediums.  
• Using modern tools (Power BI, GitHub, Python) to deliver business value.

# Part Two: Status Checkpoints Table

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| --- | --- | --- | --- |
| Checkpoint | Software Design and Engineering | Algorithms and Data Structures | Databases & Visualization |
| Name of Artifact Used | Customer Churn (Python Backend + Logging) | Feature Engineering & Model Pipeline (Python) | SQL Pipeline + Power BI Dashboard (Churn Analytics) |
| Status of Initial Enhancement | Modularized code, improved error handling | Optimized data transformations and logic | SQL schema optimized, dashboard draft created |
| Submission Status | Submitted in Milestone 2 | Submitted in Milestone 3 | Submitted in Milestone 4 |
| Status of Final Enhancement | Added environment variables, logging, scalability | Finalized feature generation with tests | Polished dashboard visuals & added DAX KPIs |
| Uploaded to ePortfolio | Yes | Yes | Yes (with embedded Power BI report) |
| Status of Finalized ePortfolio | Complete | Complete | Complete with embedded visual walkthrough |