\*\*Self-Assessment Report\*\*

\*\*1. Overall Self-Assessment Grade:\*\*

a) TSQL: A

b) MongoDB: C

\*\*2. Individual Reflective Report on TSQL Programming in SQL Server:\*\*

\*\*a) Learning Goals and Objectives:\*\*

My primary learning goals for TSQL programming in SQL Server were to gain a comprehensive understanding of database management and querying using Transact-SQL. Objectives included mastering data retrieval, modification, and administration.

\*\*b) Challenges and Obstacles:\*\*

The complexity of advanced TSQL concepts posed challenges, especially in optimizing queries and stored procedures. Debugging intricate code and mastering performance tuning proved to be obstacles in my learning journey.

\*\*c) Strengths and Weaknesses:\*\*

Strengths lie in my ability to construct basic to intermediate queries efficiently. However, weaknesses persist in tackling complex scenarios and incorporating advanced optimization techniques.

\*\*d) Summary of TSQL Modules with Competent Understanding:\*\*

I have a competent understanding of foundational modules such as data retrieval, filtering, and basic stored procedures. Additionally, I am adept at managing database objects.

\*\*e) Summary of TSQL Modules Needing More Practice:\*\*

Challenges persist in advanced query optimization, performance tuning, and dealing with complex data scenarios. More practice is required in these areas to enhance proficiency.

\*\*f) Summary of TSQL Modules Self-Study Plan:\*\*

To address the gaps in my knowledge, I plan to undertake self-study sessions focusing on advanced TSQL optimization, performance tuning, and intricate data manipulation scenarios.

\*\*3. Individual Reflective Report on Introduction to MongoDB:\*\*

\*\*a) Learning Goals and Objectives:\*\*

The primary goal was to grasp the fundamentals of MongoDB, including document-oriented database concepts, CRUD operations, and data modeling.

\*\*b) Challenges and Obstacles:\*\*

Navigating the transition from relational databases to MongoDB's NoSQL paradigm posed challenges. Understanding the document structure and adapting to a schema-less environment were initial obstacles.

\*\*c) Strengths and Weaknesses:\*\*

Strengths include a solid understanding of basic CRUD operations and document-based data modeling. Weaknesses lie in more advanced topics like aggregation framework and indexing strategies.

\*\*d) Summary of MongoDB Units with Competent Understanding:\*\*

I have a competent understanding of fundamental MongoDB units, such as CRUD operations, basic data modeling, and database administration.

\*\*e) Summary of MongoDB Units Needing More Practice:\*\*

Further practice is needed in mastering the aggregation framework, indexing strategies, and dealing with complex data structures in MongoDB.

\*\*f) Summary of MongoDB Units Self-Study Plan:\*\*

My self-study plan involves delving deeper into MongoDB's aggregation framework, mastering advanced indexing techniques, and gaining proficiency in managing complex data structures within the document-oriented database.

\*\*4. Summary on Skills Acquired and Employability as a Graduate Developer:\*\*

The acquired skills in TSQL and MongoDB significantly contribute to my employability as a Graduate Developer. Proficiency in TSQL enhances my ability to work with SQL Server databases, enabling me to develop efficient and optimized database solutions. Meanwhile, MongoDB skills broaden my horizon, making me adaptable to both relational and NoSQL database environments.

These skills are crucial in today's diverse development landscape, allowing me to contribute effectively to projects requiring database design, optimization, and management. As a Graduate Developer, I am well-equipped to handle a variety of database-related tasks, making me a valuable asset to any development team. The continuous commitment to self-study and addressing identified weaknesses further strengthens my position for future challenges in the dynamic field of database development.