**SQL Server Course Outline**

**Chapter 1- Understanding the building blocks behind SqlServer**

Lesson 1.1 – Understanding Databases

* + - * Learning objective – A theoretical introduction to understand:
        + what a database is and why it is important.
        + what is a Database Management System(DBMS).
        + what the Database Lifecycle(DBLC) entails.

Lesson 1.2 – How to create reliable databases

* + - * Learning objective – Create and understand:
        + The steps one should follow to design a database (How to choose from the many data types and table constraints)

Lesson 1.3 – What is normalizaiton and why is it important to Databases?

* + - * Learning Objective – Understand what normalization is and how to implement the different normal forms.

Lesson 1.4 – How to setup SqlServer and get your first script running:

* + - * Learning Objective – Steps to:
        + Download and setup SqlServer
        + How to get your first script running

**Chapter 2- The different forms of Normalization:**

Lesson 2.1 – First normal form(1NF)

* + - * Learning objective – An introduction to understand:
        + what the 1NF is
        + how to apply it to a scenario

Lesson 2.2 – Second normal form(2NF)

* + - * Learning objective – Understand:
        + What 2NF is
        + How is it different from 1NF
        + How to apply it to a scenario

Lesson 2.3 – Third normal form(3NF)

* + - * Learning Objective –Understand:
        + What 3NF is
        + How is it different from 2NF
        + How to apply it to a scenario

**Chapter 3 – Understanding Data Definition Language(DDL)**

Lesson 3.1 – What is DDL and why is it important

* + - * Learning objective – A small theoretical introduction to understand:
        + what DDL is and the different DDL commands to use on SqlServer.

Lesson 3.2 – Creating Databases and tables

* + - * Learning objective – A practical approach as to:
        + how to create a database and its tables in different normal forms.
        + understand the different keys and constraints to use

Lesson 3.3 – Altering and Deleting tables

* + - * Learning objective – Understand the power of ‘Alter’ and ‘Delete’.
        + when to Alter or Delete the table
        + why you would want to Alter or Delete the table
        + how to Alter or Delete the tables

**Chapter 4 – Understanding Data Manipulation Language(DML)**

Lesson 4.1 – What is DML and why is it important

* + - * Learning objective – A theoretical understanding to:
        + what DML is
        + what the most common DML commands are.
        + DDL vs DML

Lesson 4.2 – Create

* + - * Learning objective – Theoretical and practical understanding of:
        + how to insert or create records in the tables, considering the different datatypes
        + when to use it

Lesson 4.3 – Read

* + - * Learning objective – Understand:
        + how to read all or some values from the tables in a database
        + when to use it

Lesson 4.4 – Update and Delete

* + - * Learning objective – Understand:
        + how to update and Delete values in any table.
        + when to use it.

Lesson 4.5 – Putting it all together

* + - * Learning objective – Bringing all the knowledge together in a scenario to design and create a full database.

###I could add another lesson to teach Advanced DML commands, like Group By, but I was not sure as to whether that may be out of scope for this lessons.