

Introduction to T-SQL Queries




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- Lifelong learner
- Teacher

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 - Data Platform MVP

Agenda

- Class 1
 - Module 1: Introduction
 - Module 2: Simple select statements
 - Module 3: Filtering
- Class 2
 - Module 4: Expressions
 - Module 5: Joining
- Class 3
 - Module 5: Joining (Continued)
 - Module 6: Grouping
- Class 4
 - Module 7: Subqueries
 - Module 8: UNION

CLASS MATERIALS

- <https://github.com/KathiKellenberger/CoderGirlDataAnalysis>
 - Slides
 - Demos
 - Labs
- Students should install Azure Data Studio and connect to
 - sqlprojects.com,3500
 - Student
 - Madison18*
 - Instructions will be given in class

Module 1: Introduction

What's a database?

Database

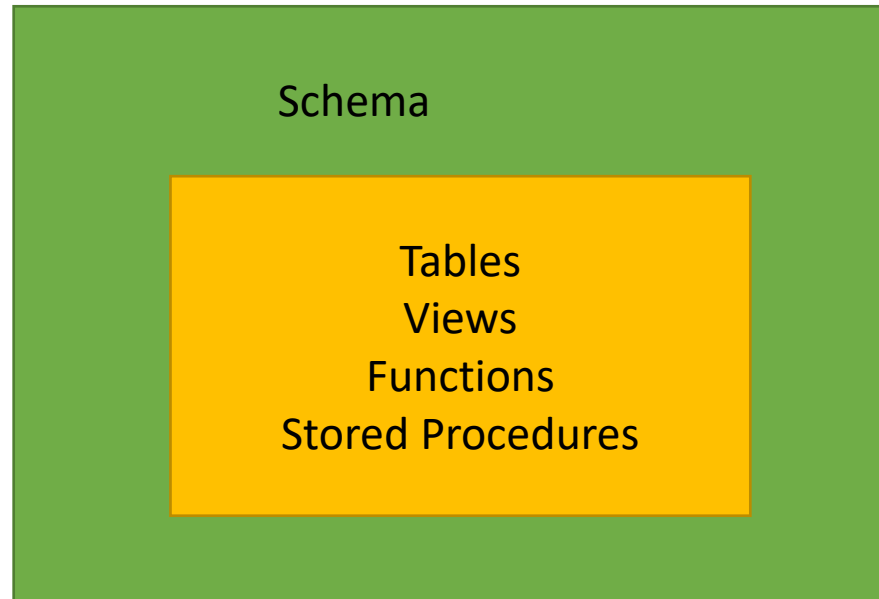
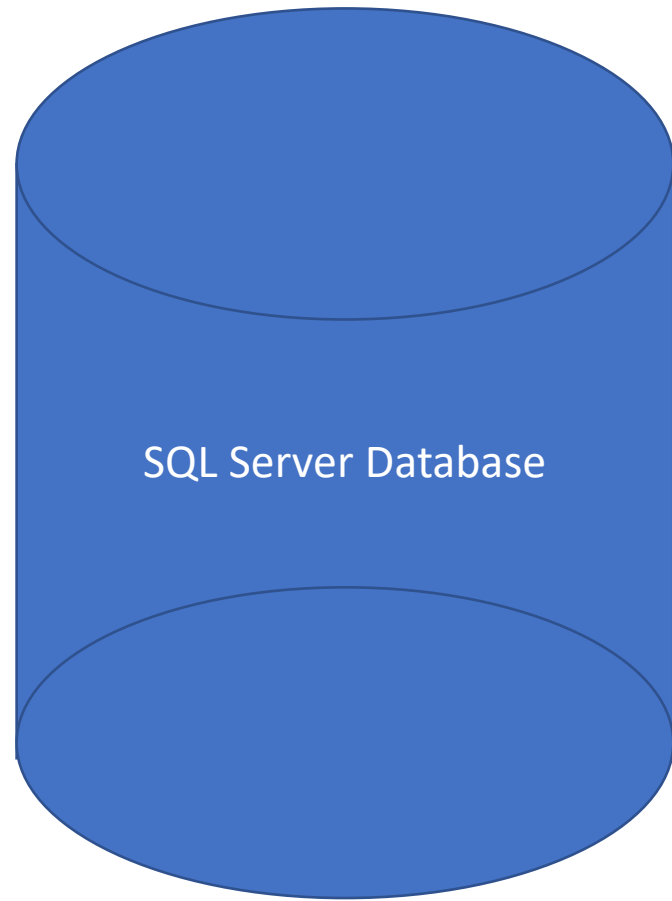


```
target_date | target_time  
-----  
2016-12-26 | 02:29:30  
2016-12-26 | 02:32:29  
2016-12-26 | 02:32:29  
2016-12-26 | 02:35:29  
2016-12-26 | 02:35:29  
2016-12-26 | 02:38:29  
2016-12-26 | 02:38:29  
2016-12-26 | 02:41:30  
2016-12-26 | 02:41:30  
2016-12-26 | 02:44:29  
2016-12-26 | 02:44:29
```

A database is an organized collection of data. It is the collection of schemas, tables, queries, reports, views and other objects. The data are typically organized to model aspects of reality in a way that supports processes requiring information, such as modelling the availability of rooms in hotels in a way that supports finding a hotel with vacancies.

Database - Wikipedia

<https://en.wikipedia.org/wiki/Database>



Tables

UsedCars					
ID	Make	Model	Type	Year	Color
1	Chevrolet	Malibu	Passenger car	2015	Blue
2	Hyundai	Sonata	Passenger car	2011	Silver
3	Chrysler	Pacifica	Minivan	2017	White
4	Toyota	Prius	Hybrid car	2013	White
5	Hyundai	Elantra	Passenger car	2015	Blue
6	Chevrolet	Silverado	Truck	2013	Red

```
SELECT *  
FROM UsedCars  
WHERE Make = 'Hyundai';
```


T-SQL

- SQL = Structured Query Language
- T-SQL = Transact SQL
- Each vendor has own version
- The basics are the same

PRINT, GO, USE, and comments

- Print displays a message
- GO is a batch separator
- USE – switch databases
- -- (two dashes) for a one-line comment
- /* */ for multi line comments
- Use a tick mark aka single quote around strings or dates
- Use a semi-colon at end of statements

Get started

- Connection
 - sqlprojects.com,3500
 - Student with pw Madison18*
 - SQL Authentication
- You can continue to use the databases after today.

Connection Details	
Connection type	Microsoft SQL Server
Server	sqlprojects.com,3500
Authentication type	SQL Login
User name	student
Password
	<input checked="" type="checkbox"/> Remember password
Database	<Default>
Server group	<Default>
Name (optional)	

Demo 1: Getting around in Azure Data Studio

Lab

- Complete Module 1 Lab 1
- Start back up at