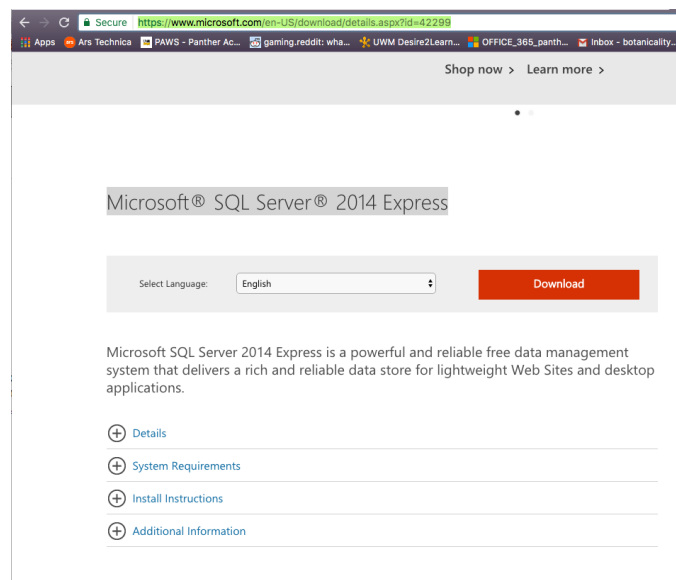


DIY Guide to the following:

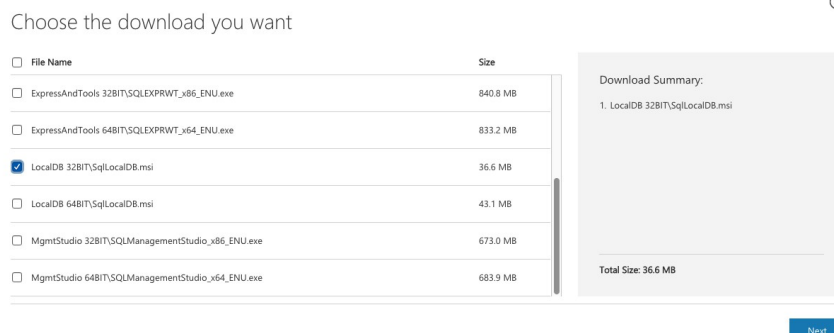
Setup Microsoft SQL Server
Setup Local Database
Connect Visual Studio Models with Local Database

1. Setup Microsoft SQL Server

- Download Microsoft SQL Server 2014 Express (2014 because that's the last FREE version...anything newer and you have to pay....)
 - <https://www.microsoft.com/en-US/download/details.aspx?id=42299>



- I'm running a 32bit Windows vm so I chose the “LocalDB 32BIT\SqlLocalDB.msi” only. If you're running 64 bit, just choose the 64 bit one. In the screenshot 32 bit is selected, 64 bit is right below. You ONLY need one or the other. None of the other things are relevant to us atm



- Once it downloads follow the onscreen wizard setup instructions. Its pretty straight forward.
- After installation, open cmd and run the command “sqllocaldb”. If you see the following you did it right. If not, you did it wrong...



```

C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\andrew_ryan>sqllocaldb
Microsoft (R) SQL Server Express LocalDB Command Line Tool
Version 11.0.2100.60
Copyright (c) Microsoft Corporation. All rights reserved.

Usage: SqlLocalDB operation [parameters...]

Operations:

-?
    Prints this information

create|c "instance name" [version-number] [-s]
    Creates a new LocalDB instance with a specified name and version
    If the [version-number] parameter is omitted, it defaults to the
    SqlLocalDB product version.
    -s starts the new LocalDB instance after it's created

delete|d "instance name"
    Deletes the LocalDB instance with the specified name

start|s "instance name"
    Starts the LocalDB instance with the specified name

stop|p "instance name" [-i!-k]
    Stops the LocalDB instance with the specified name,
    after current queries finish
    -i request LocalDB instance shutdown with NOWAIT option
    -k kills LocalDB instance process without contacting it

share|h ["owner SID or account"] "private name" "shared name"
    Shares the specified private instance using the specified shared name.
    If the user $SID or account name is omitted, it defaults to current user.

unshare|u "shared name"
    Stops the sharing of the specified shared LocalDB instance.

info|i
    Lists all existing LocalDB instances owned by the current user
    and all shared LocalDB instances.

info|i "instance name"
    Prints the information about the specified LocalDB instance.

versions|v
    Lists all LocalDB versions installed on the computer.

trace|t on|off
    Turns tracing on and off

SqlLocalDB treats spaces as delimiters. It is necessary to surround
instance names that contain spaces and special characters with quotes.
For example:
SqlLocalDB create "My LocalDB Instance"

C:\Users\andrew_ryan>

```

- Chances are you did it right. Sweet. Continuing on. Run the command “sqllocaldb versions” To make sure Microsoft SQL Server 2014 is installed

```

C:\Users\andrew_ryan>sqllocaldb versions
Microsoft SQL Server 2012 (11.0.2318.0)
Microsoft SQL Server 2014 (12.0.2000.8)

C:\Users\andrew_ryan>

```

- Run the command “sqllocaldb info” to see a list of the sql servers already set up. You will probably have 1 or two. Thats fine, they come with the DL.

```
C:\Users\andrew_ryan>sqllocaldb info
LocalDb
MSSQLLocalDB
v11.0
C:\Users\andrew_ryan>_
```

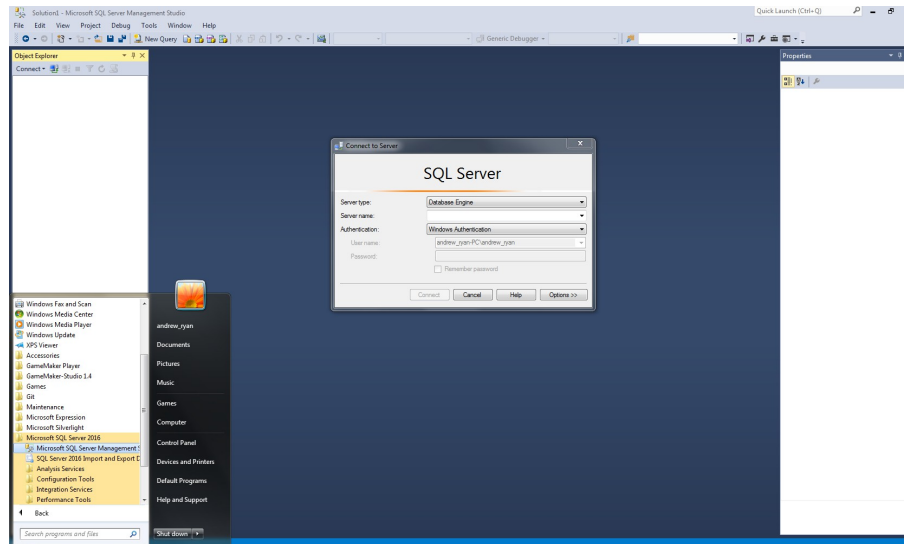
- Now we want to create an SQL server. We want to specify to use the 2014 version. Run the command below. The database name is what your database will be called, and the number after correlates to the version number in the (two screenshots above) 2014 version you have.
 - sqllocaldb create “DatabaseNameHere” 12.0.2000.8
- Running “sqllocaldb info” again should then show your newly created server.
- NICE! Onto the database itself.

2) Setup Microsoft SQL Server Management Studio 2016

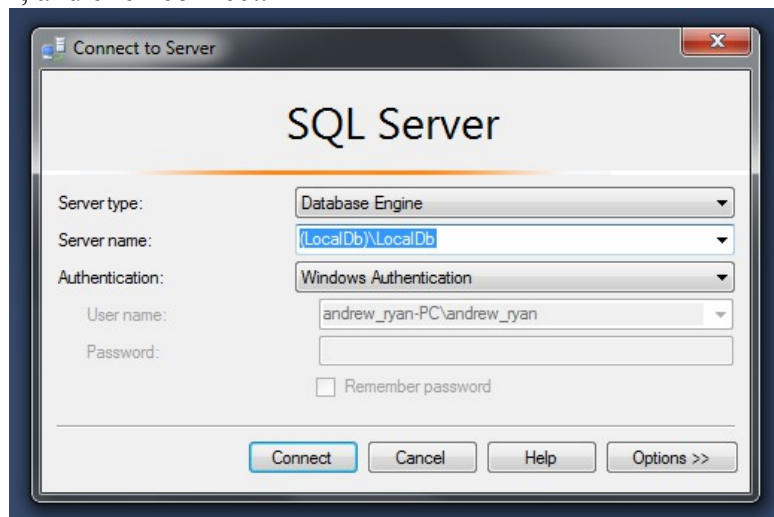
- Download SQL Server Management Studio from below link, its the first blue link on the page
 - <https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms>

The screenshot shows the Microsoft documentation page for downloading SQL Server Management Studio (SSMS). The page title is "Download SQL Server Management Studio (SSMS)". It includes a left-hand navigation menu with links like "What is SSMS?", "SSMS Changelog", "Release notes", "SQL Server Management Studio (SSMS) - Release Candidate", "SQL Server Agent", "F1-Help", "Menu Help", "Object Explorer", "Solution Explorer", "Templates", and "Visual Database Tools". The main content area provides two download options: "Download SQL Server Management Studio (16.5.3)" labeled as the "Current release for production use" and "Download SQL Server Management Studio - Release Candidate" which "Includes support for SQL Server vNext CTP1, and works side-by-side with 16.5 but not recommended for production use." A note at the bottom states: "SSMS releases are now branded numerically, not by months. This generally available release of SSMS is free and does not require a SQL Server license to install and use."

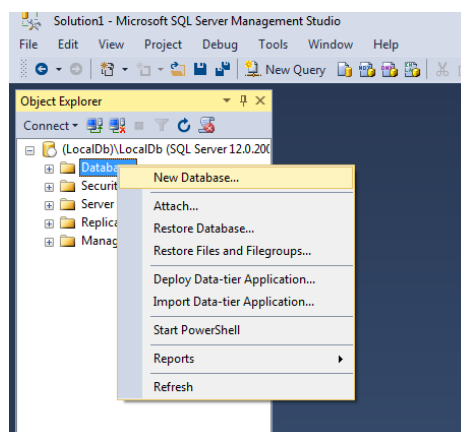
- Again follow onscreen wizard installation. It will take a while. Sorry...
- Once it downloads, open that bad boy up. Its the file on the left bottom of my screenshot. The download installs a few other tools, non of which we need. Make sure when you open it, it looks like this.



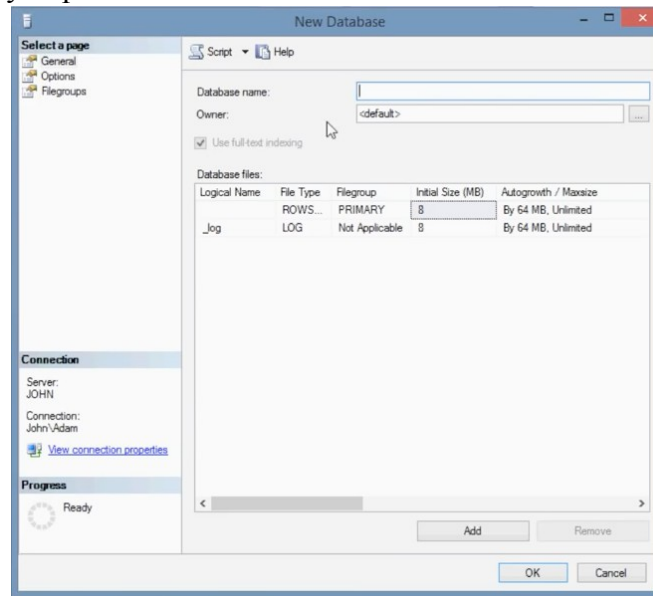
- Type the server name (the SQL server you just created in the cmd), keep Windows Authentication, and click connect.



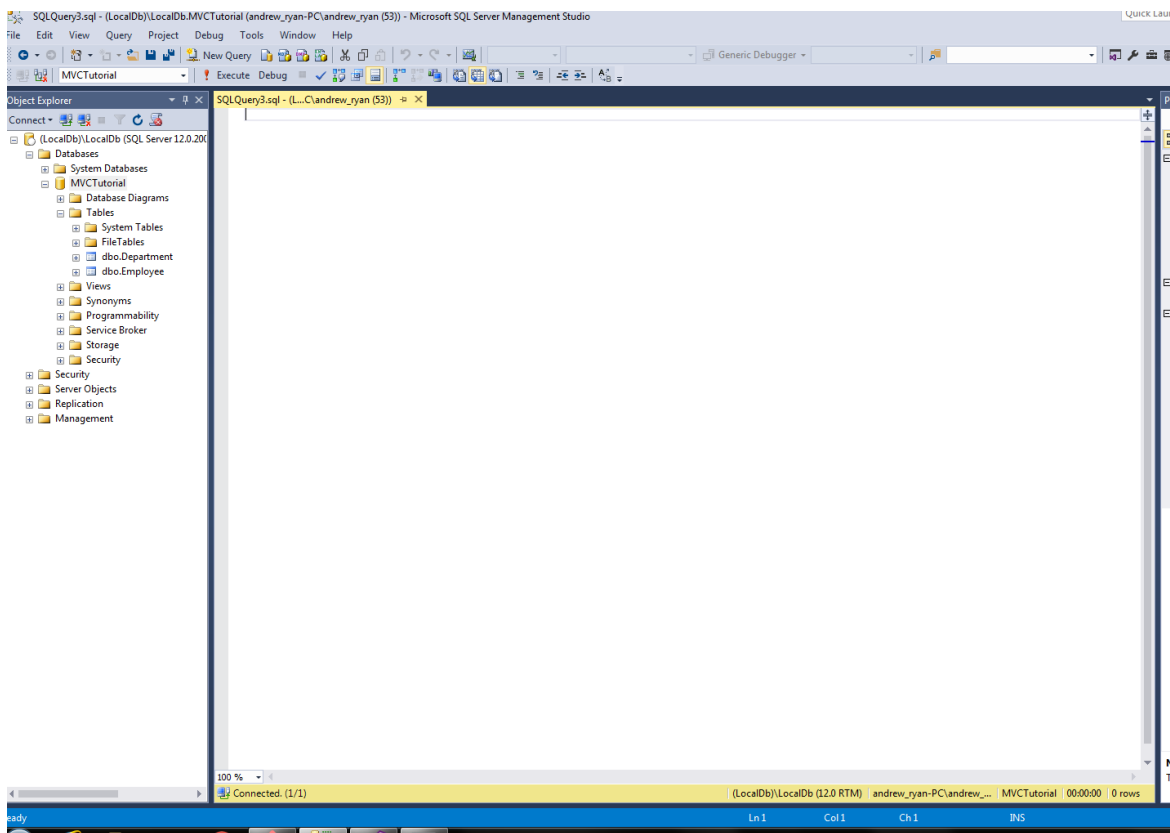
- Right click Databases, and select New Database



- Name it whatever you please and click OK



- Then Select the newly created database in the file structure and click “New Query” in the top left toolbar.
 - Make SURE in the bottom right, yellow footer you see the database name you created for the Query editor. I accidentally did some queries in the “master” db before noticing. Just a good check



- Great, now you have the database! :D If you want to add tables, just write the sql ^_^ you don't have too tho. Code below will create two tables Employee and Department, and fill them with data if you wanted. This is just the tables from the tutorial posted in the bottom of this doc, and on the slack page.

```
CREATE TABLE Employee (
    EmployeeId          integer CONSTRAINT firstkey PRIMARY KEY,
    Name                varchar(40) NOT NULL,
    DepartmentId        integer,
    Address              varchar(40),
);

select * from employee

insert into Employee (EmployeeId, Name, DepartmentId, Address) values (1, 'Cooper', 1, 'Milwaukee');
insert into Employee (EmployeeId, Name, DepartmentId, Address) values (2, 'Taylor', 2, 'India');
insert into Employee (EmployeeId, Name, DepartmentId, Address) values (3, 'Angelo', 3, 'Tibet');
insert into Employee (EmployeeId, Name, DepartmentId, Address) values (4, 'Shane', 3, 'Indiana');

CREATE TABLE Department (
    DepartmentId        integer CONSTRAINT secondkey PRIMARY KEY,
    DepartmentName      varchar(40) NOT NULL,
);

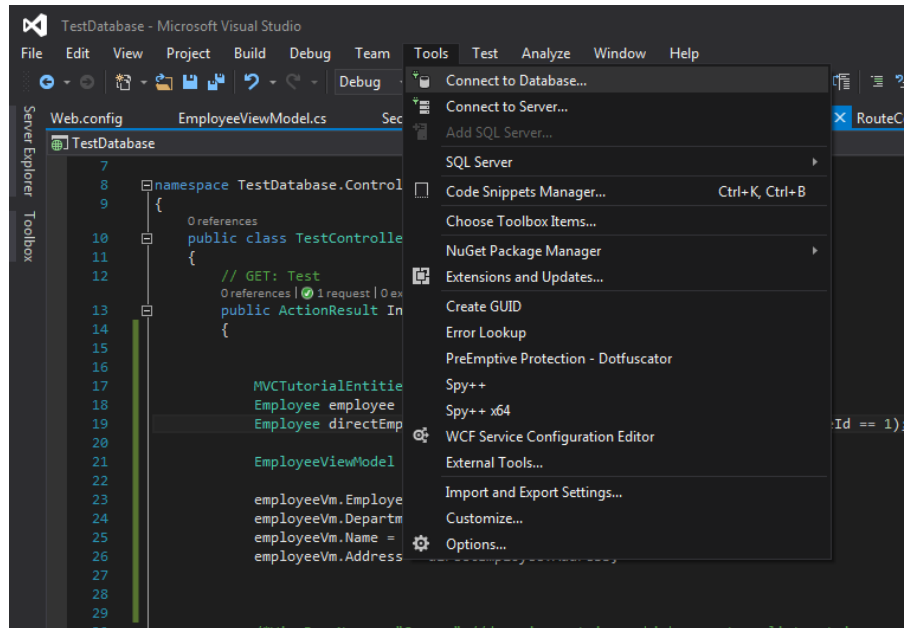
select * from Department

insert into Department (DepartmentId, DepartmentName) values (1, 'Dev');
insert into Department (DepartmentId, DepartmentName) values (2, 'QA');
insert into Department (DepartmentId, DepartmentName) values (3, 'UAT');
insert into Department (DepartmentId, DepartmentName) values (4, 'Sales');
```

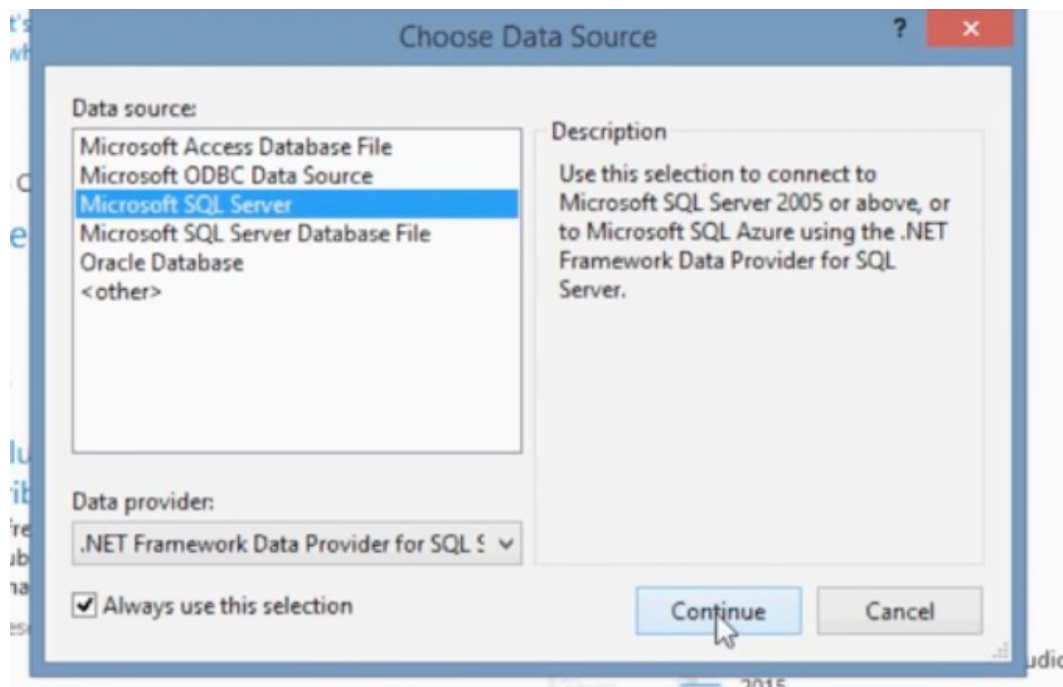
- Now if you are following the tutorial, you'll get to the 6th video and he will walk you through a scenario to import the tables from the database into visual studio to create corresponding Models. I will also supply a quick wat to connect a database with visual studio by itself. Lastly, there is some way to actually create a database/tables based off the Models but that is something for me one of us to figure out ^_^

3) Connecting Visual Studio with a Local Database

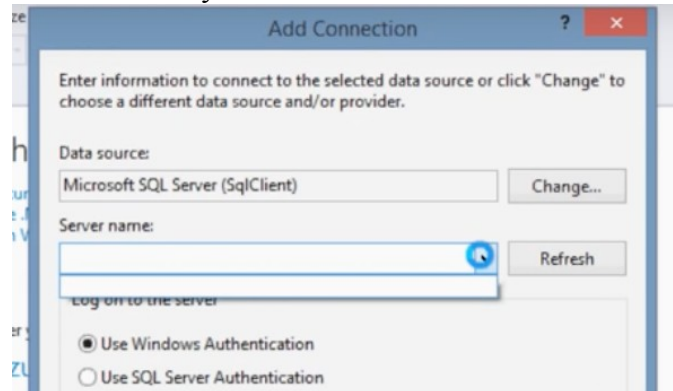
- This is an alternative way to connect to a database from Visual Studio from how the video series below describes. Click Tools → Connect to Database



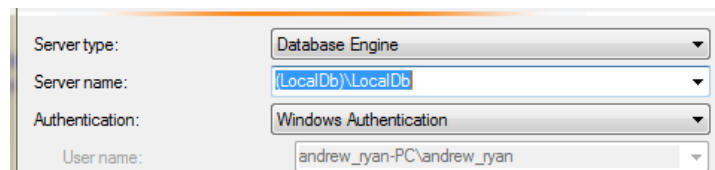
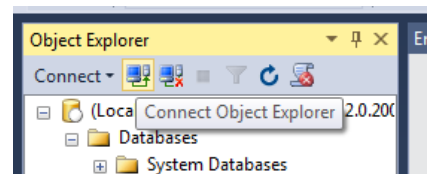
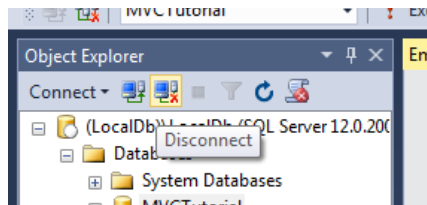
- Select Microsoft SQL Server and click continue



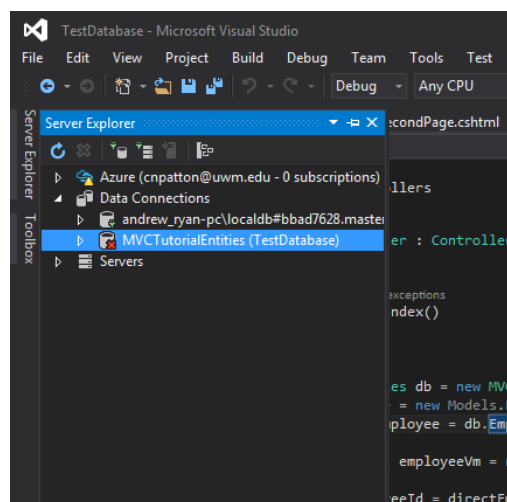
- The data source will be fine where its at.
- Select the Server Dropdown and wait while it tries but fails to locate your SQL server. This is fine. It won't find it on the first try.



- Instead we will input it manually. Go to your database and click Disconnect, then Connect to bring back the initial prompt, but this time your Database server will appear

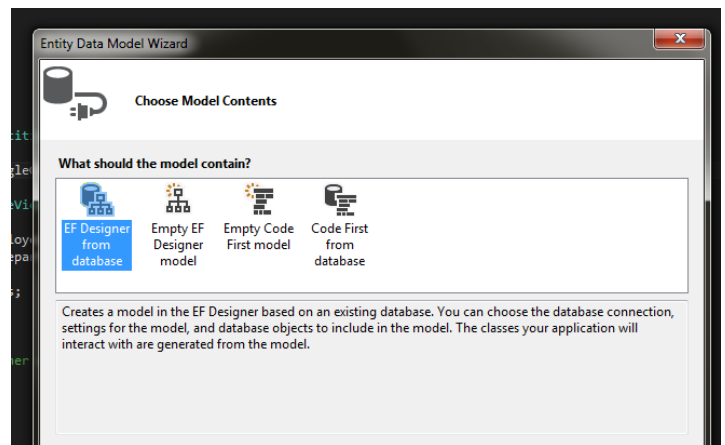
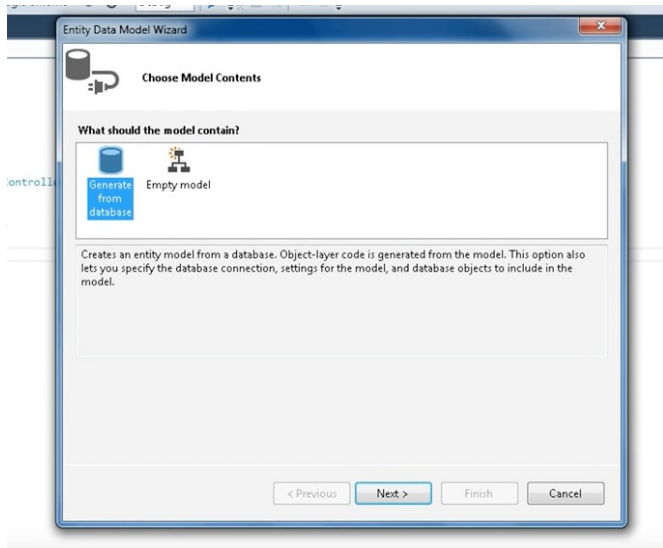


- Now copy and paste that name into the previously blank Server Name field, and enter the name of your database (or select it from the dropdown) below that and click test connection to make sure it tells you “Test Connection Succeeded”.
- Click OK
- Now you can click the Server Explorer toolbar on the left and you should see your newly connected Database!



Lastly

- If you're following the tutorial for database model setup, which I recommend you do, (6th episode he explains it) everything will be like he said, except when he selects how to import the database into your project, he will have two options. You will have 4. His “Generate from database” = Your “EF Designer from database”. Everything else is the same.



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Congratulations you did it!

Links below



- Video on setting up SQL server
 - <https://www.youtube.com/watch?v=M5DhHYQlnq8>
- Video on setting up local database
 - https://www.youtube.com/watch?v=Z_TmTLDm5Wc
- Video (6th of like 30) of setting up Visual Studio Models with database
 - https://www.youtube.com/watch?v=UrHKfCCnCnHQ&index=6&list=PLM5JAv_WpgH_FKWlsGkbiKUczG4BU8mv5