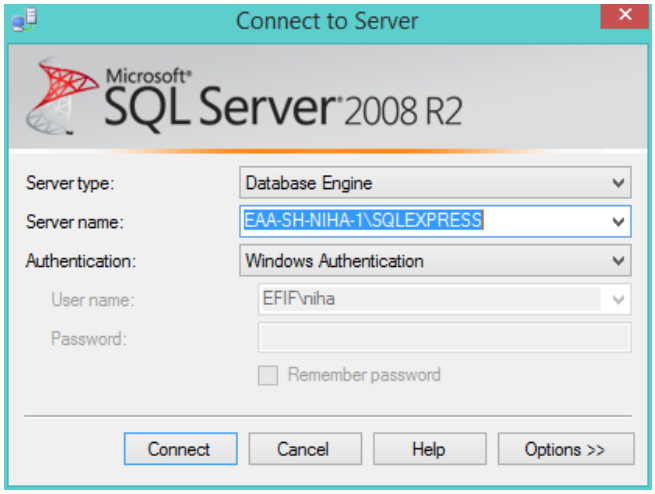
# SQL assignment (Poll App)

The purpose of this assignment, is that you get familiar with SQL Server Management Studio. The Management Studio comes along with the SQL server and you may find it in your programs as *Microsoft SQL Server 2008 R2* or named after that version you may have installed.

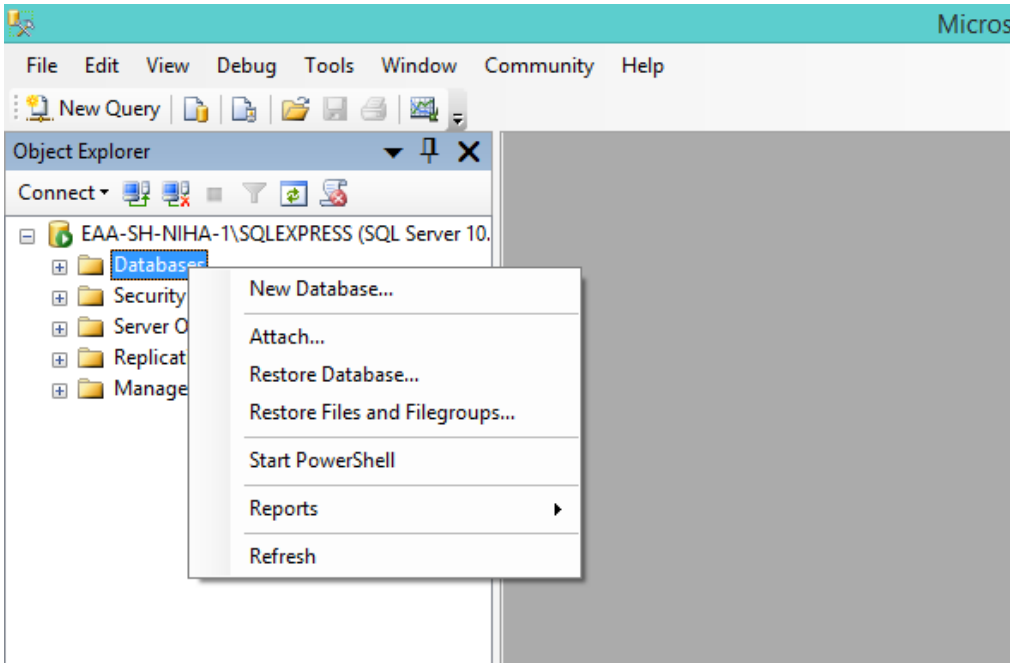
**Video (6:40) where I walk through the start up process below and give some hints for basic SQL**:
**https://www.youtube.com/watch?v=-rd4gvLy8NQ**

When you start the Management Studio you have to connect to the server. If the server has been installed and started, the “Server name” field should be filled out with the name of your computer followed by \SQLEXPRESS.

You may also like to connect to the server with .\SQLEXPRESS (dot - backslash - SQLEXPRESS).

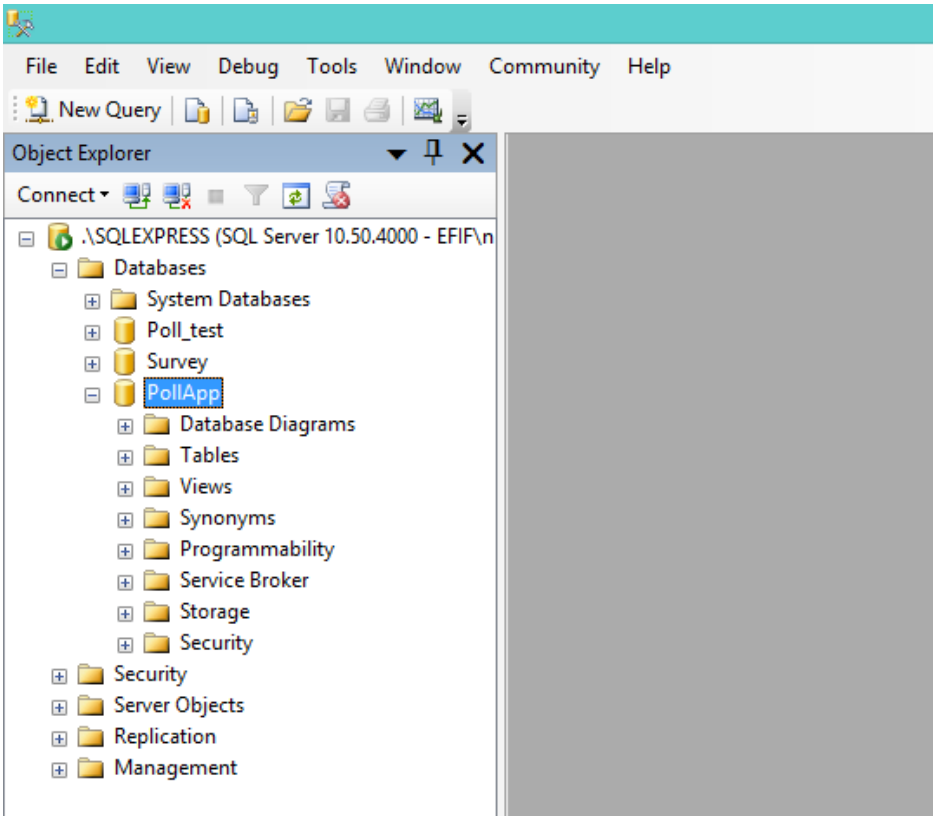



The you can create your database by right clicking “Databases” in the “Object Explorer”. and choose “New Database…”.



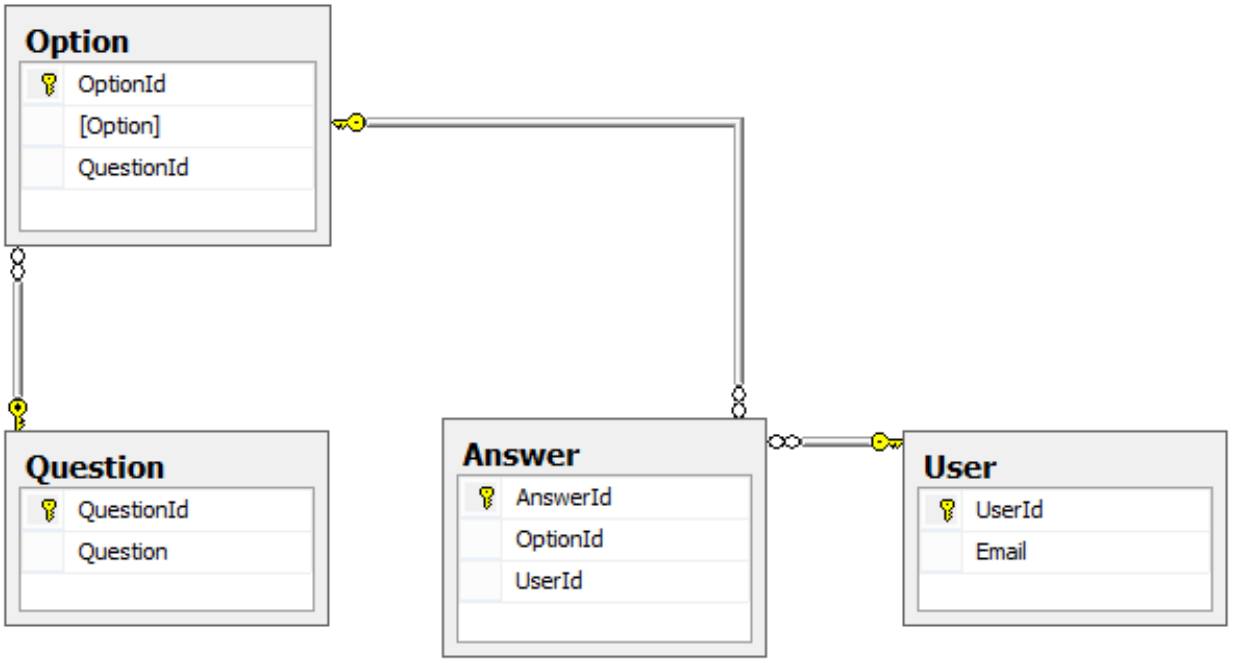
Lecture 1 - SQL

Name your database i.e. PollApp andf it will appear in the Object Explorer. Click the plus-icon to unfold the database features.



# SQL assignment 1 (tables)

Create the tables for one of the diagrams below. Remember to specify identification (autoincrement) for each table and primary key as well.

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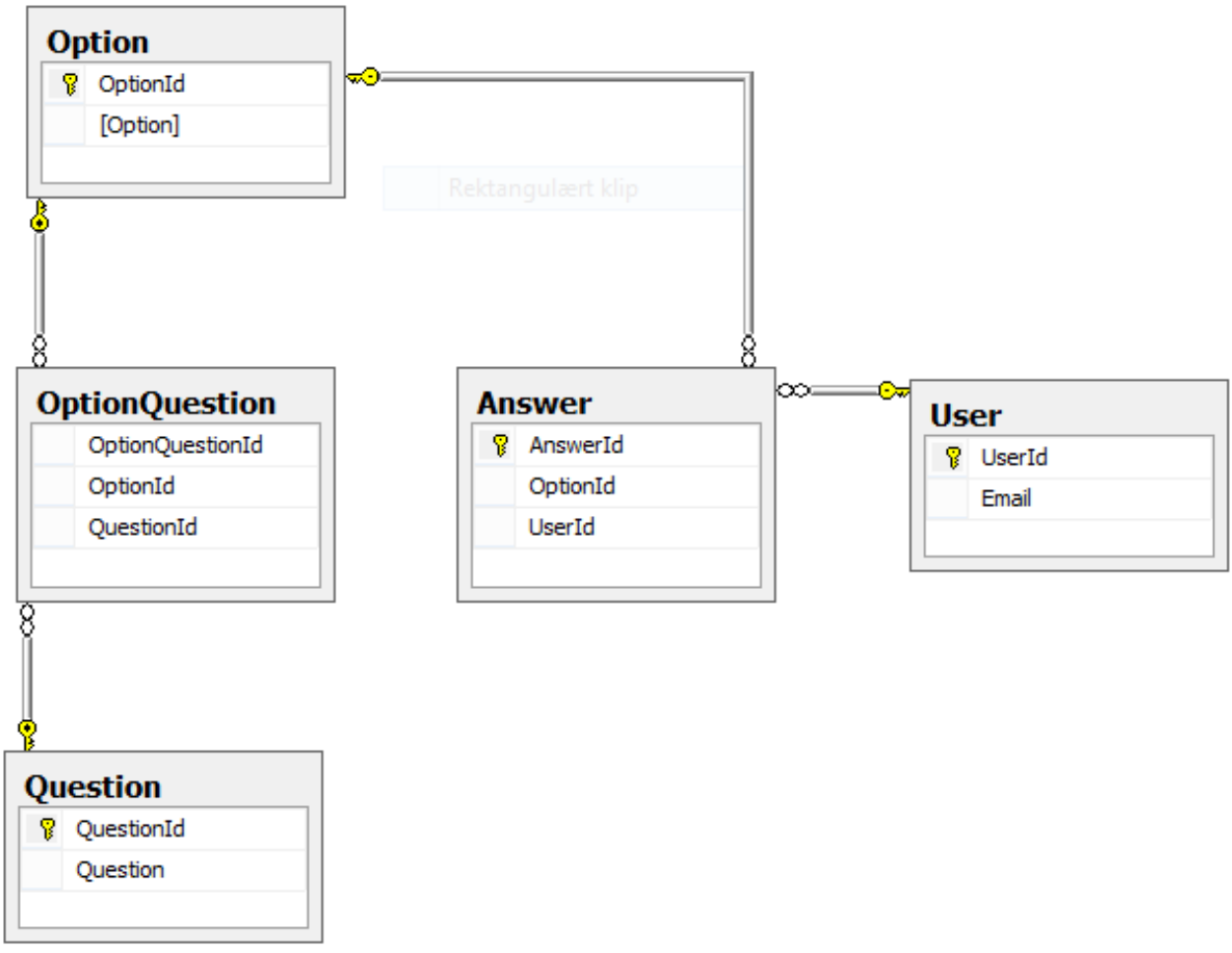

# SQL assignment 2 (INSERT)

**IMPORTANT!**
It is advisable to save the SQL statements in a proper folder structure on your computer. When you choose “New query…” in the Management Studio, a new tab is created and you can then press CTRL+S to save it on your computer when the query is ok. It is then possible for you to review your results later on and use them for future assignments.

1. You shall now insert data in the tables. The below mentioned requirements are not necessary listed in the proper order - you might need to insert data in some tables before others. And you might wonder why is that. Take notes of your reflections upon that wondering.

    A. Insert four users in the User table and select all the rows in the table after insertion.
    B. Insert one to two answers from three of the users into the Answer table.
    C. Insert two questions with two-four options into the Option and Question table.

Lecture 1 - SQL

# SQL assignment 3 (SELECT, JOIN, COUNT, GROUP BY)

Use SQL to retrieve the following datasets:

1. The options and the question for one of the questions you inserted in assignment 2.
   **Hint:** Use INNER JOIN to establish the relation between tables

   A result may look like this:

| | Question | Option |
|---|---|---|
| 1 | Favorite pet? | Cat |
| 2 | Favorite pet? | Dog |
| 3 | Favorite pet? | Elephant |
| 4 | Favorite pet? | Dolphin |

2. Count the number of answers a particular option has got.
   **Hint**: Use COUNT to count the occurrence of a particular option.

   A result may look like this (given that two users have answered *Cat* as their favourite pet):

| | CountOption | Option |
|---|---|---|
| 1 | 2 | Cat |

3. The distribution of counting of the answered options for a question. A result may look like this:
   **Hint**: Use COUNT and GROUP BY to select the distribution of the counting.

   A result may look like this (given that two users have answered *Cat,* one user has answered *Dog*, and one user has answered *Elephant* as their favourite pet):

| | CountOption | Option |
|---|---|---|
| 1 | 2 | Cat |
| 2 | 1 | Dog |
| 3 | 1 | Elephant |

4. The distribution of counting of **all** the options for a question. A result may look like this:
   **Hint**: Use COUNT and GROUP BY to select the distribution of the counting. And remember that LEFT OUTER JOIN and RIGHT OUTER JOIN is different from INNER JOIN.

   A result may look like this (in descending order), when the option *Dolphin* did not get any answers:

| | CountOption | Option |
|---|---|---|
| 1 | 2 | Cat |
| 2 | 1 | Dog |
| 3 | 1 | Elephant |
| 4 | 0 | Dolphin |

# SQL assignment 4 Extra! (subselect)

We would like to get the counted distribution displayed in percentage in relation to the total number of answers for a particular question.

**Hint**: Subselects can help you out.

A result may look like this (in descending order), when the option *Dolphin* did not get any answers:

| | CountOption | Option | Pct |
|---|---|---|---|
| 1 | 2 | Cat | 50 |
| 2 | 1 | Dog | 25 |
| 3 | 1 | Elephant | 25 |
| 4 | 0 | Dolphin | 0 |