Steps to create a database in Microsoft SQL server, 2017

- Step 1: Pick which database you want to place your table in,

Syntax: use db_name; , and we specify the db_name

A table is in the database, a database can have more than 1 table. And Microsoft SQL server engine can have multiple databases.

- Step 2: Create the table.

Syntax: create table table_name(....); , and we specify the table name.

- Step 3: In that table, we specify the columns we want to place, we start by specifying the primary key which is a unique identifier.

Syntax:

Exemple: id int primary key not null; //Exemple of primary key declaration

Column_Name Data_Type attribute;

Column_Name Data_Type primary_key attribute identity(1,1);

- **Not null:** type of attribute, means that the columns cannot be empty.
- **identity(10,1); :** specifies that we want to automatically increment each time a record goes in, and we want to start counting from the number 10, with a step of 1.
- **nvarchar or varchar or char:** is a data type.
- **nvarchar(50):** a constraint that means that no table record should come into the database with more than 50 characters.

- Step 4: Save the table and execute it!
- If we execute the same query twice it will give us an error, this is why when adding a new table in the same query, place the already executed on in comments. /*....*/
- OR just select the portion of code we want to execute, and press F5, or simply click on the execute button.

Example:

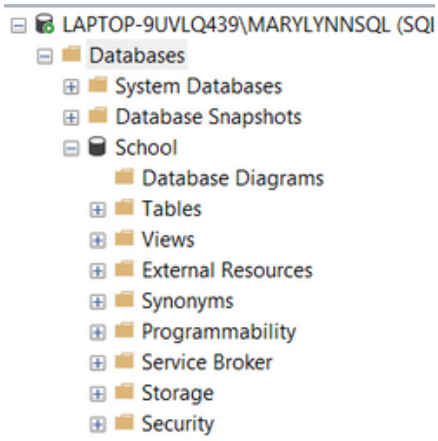


Table 1

```
use School;

create table Students(
    id int primary key not null identity(1,1),
    Last_Name nvarchar(50) not null,
    First_Name nvarchar(50) not null,
    Date_Birth date not null,
    Enrollment_Date date
);
```

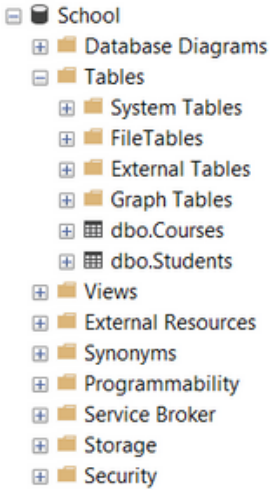
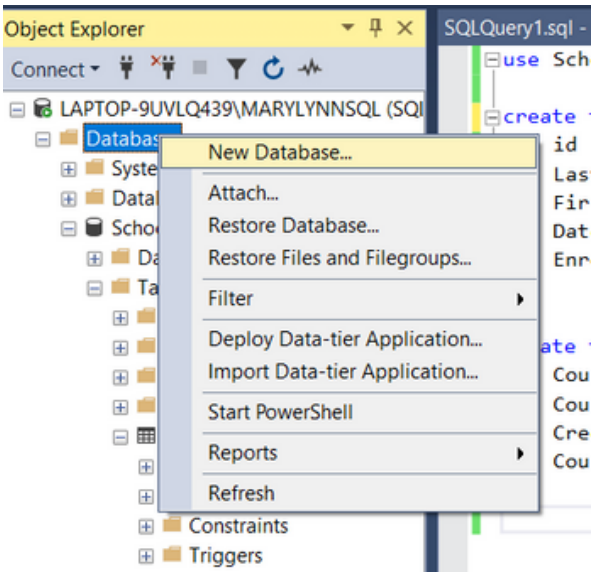


Table 2

```
create table Courses(
    Course_id int identity(1,1) primary key not null,
    Course_Name nvarchar(50) not null,
    Credit_Number int,
    Course_Code nvarchar(5)
);
```

To see the newly added tables to our database, keep refreshing the side bar.

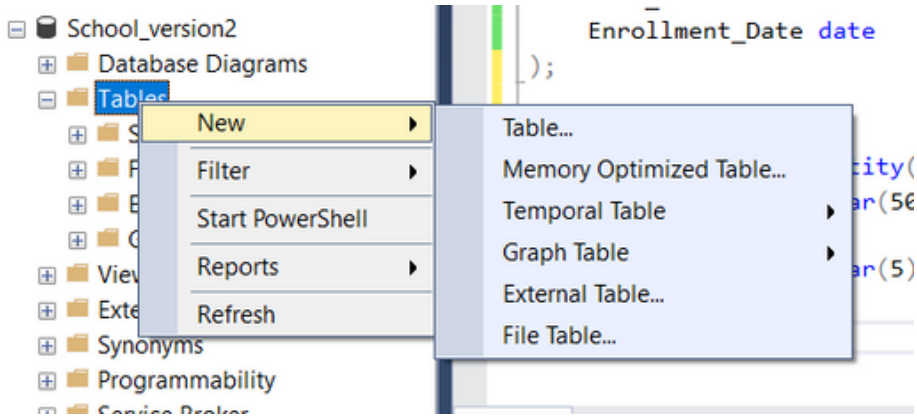
To create a new Database

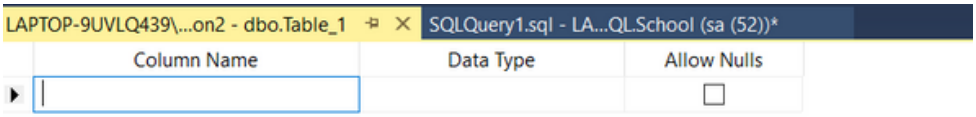


Every database comes with an mdf file: which stores the actual data, and a log file, that keeps track of all the changes being made against the data.

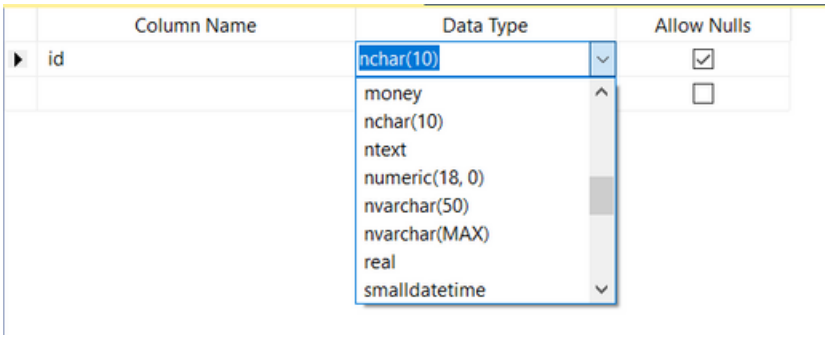
Most database administrators would configure the server to have two different hard drives, one where the OS is installed and another one specifically for storing the MDF and log files.

Methode 2 : on how to create a table using no commands



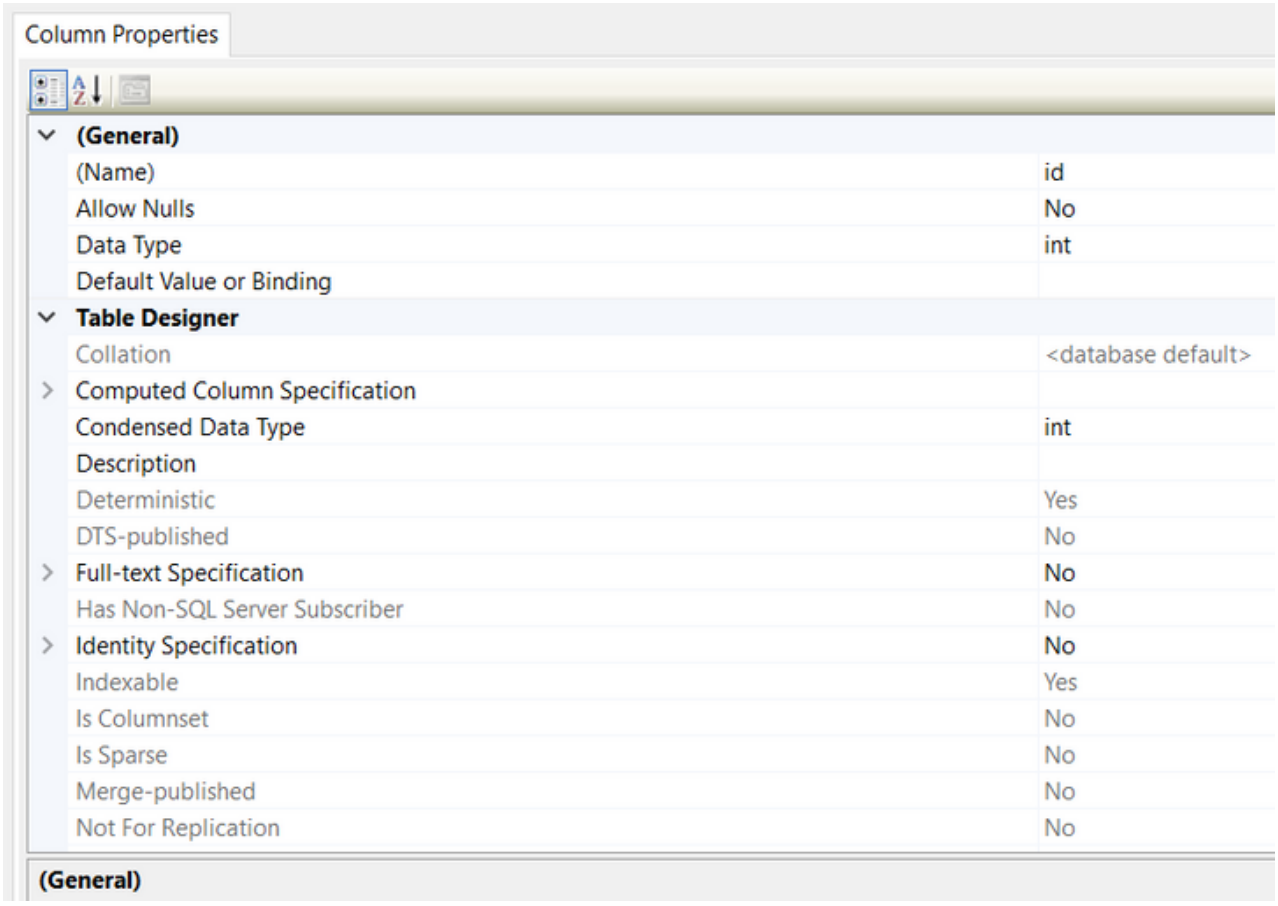


Manually specify the names, and click on the TAB button to move from column to column.

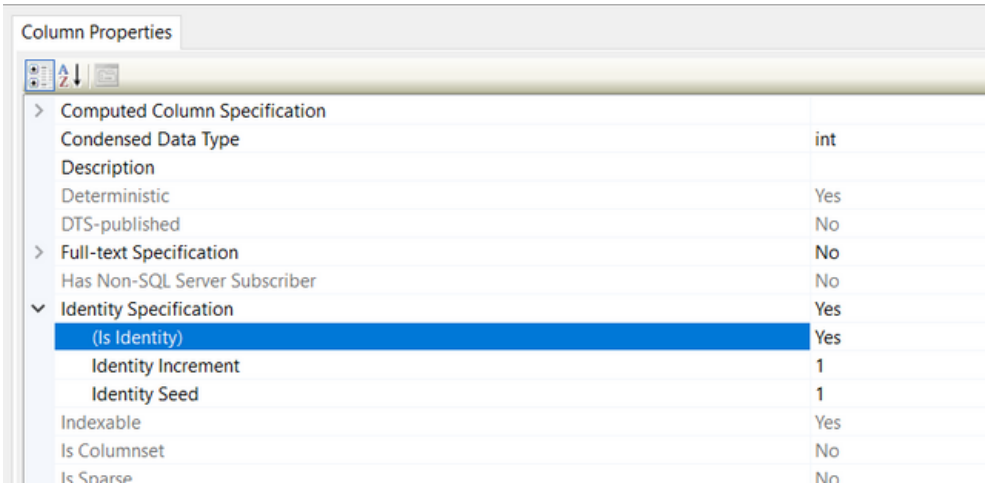


- Specify data type.
- And last : Allow nulls: check if you want the column to have the option to stay empty.
- To set as primary key, right click on the dropdown arrow on the left side of the column name and press on: Set as primary key.

Properties window:



To allow auto-increment:



Save and rename the table.
Whenever we save the table, it executes in the Background and adds it to the db