

# 9 Views

Views are virtual table for easier access to data stored in multiple tables.

## Create View:

```
IF EXISTS (SELECT name
            FROM sysobjects
            WHERE name = 'CourseData'
            AND type = 'V')
    DROP VIEW CourseData
GO

CREATE VIEW CourseData
AS

SELECT
    SCHOOL.SchoolId,
    SCHOOL.SchoolName,
    COURSE.CourseId,
    COURSE.CourseName,
    COURSE.Description

FROM
    SCHOOL
    INNER JOIN COURSE ON SCHOOL.SchoolId = COURSE.SchoolId
GO
```

A View is a “virtual” table that can contain data from multiple tables

The Name of the View

Inside the View you join the different tables together using the **JOIN** operator

You can Use the View as an ordinary table in Queries :

## Using the View:

```
select * from CourseData
```

	SchoolId	SchoolName	CourseId	CourseName	Description
1	1	TUC	1	Industrial IT	The best course ever
2	1	TUC	2	Control with Implementation	Control Theory
3	1	TUC	3	Systems and Control Laboratory	Practical Lav course

Syntax for creating a View:

```
CREATE VIEW <ViewName>
AS
...
```

... but it might be easier to do it in the graphical view designer that are built into SQL Management Studio.

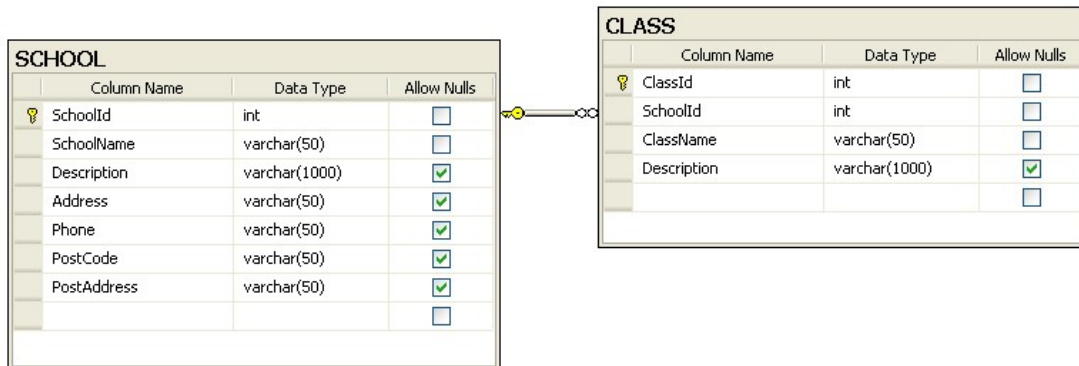
Syntax for using a View:

```
select * from <MyView> where ...
```

As shown above, we use a VIEW just like we use an ordinary table.

**Example:**

We use the SCHOOL and CLASS tables as an example for our View. We want to create a View that lists all the existing schools and the belonging classes.



We create the VIEW using the CREATE VIEW command:

```
CREATE VIEW SchoolView
AS

SELECT
SCHOOL.SchoolName,
CLASS.ClassName
FROM
SCHOOL
INNER JOIN CLASS ON SCHOOL.SchoolId = CLASS.SchoolId
```

**Note!** In order to get information from more than one table, we need to link the tables together using a JOIN.

## 9.1 Using the Graphical Designer

We create the same View using the graphical designer in SQL Server Management Studio:

## Creating Views using the Editor

**1** New View...

**2** Add Table

**3** Select necessary columns

Graphical Interface where you can select columns you need

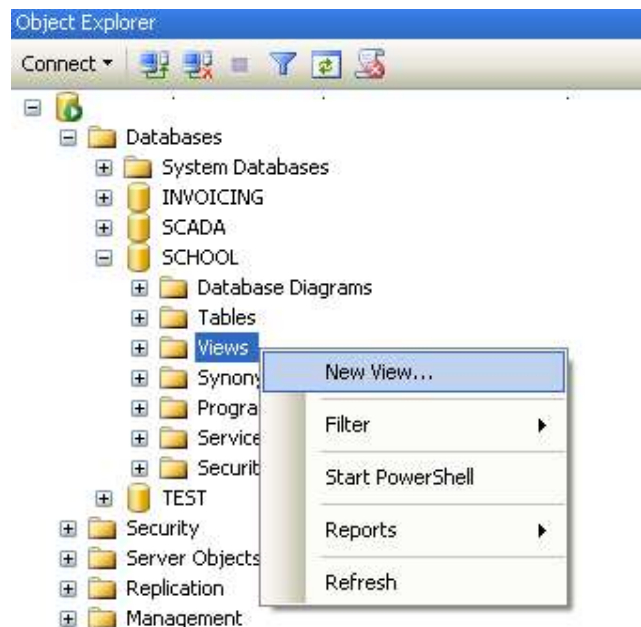
The Code is automatically generated

Show the results

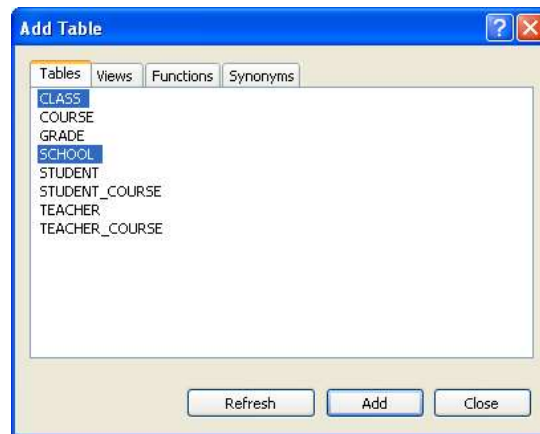
**4** Choose Name

Save the View

**Step 1:** Right-click on the View node and select “New View...”:



**Step 2:** Add necessary tables:



**Step 3:** Add Columns, etc.

Column	Alias	Table	Output	Sort Type	Sort Order	Filter	Or...	Or...	Or...
SchoolName		SCHOOL	<input checked="" type="checkbox"/>						
ClassName		CLASS	<input checked="" type="checkbox"/>						

```

SELECT  dbo.SCHOOL.SchoolName, dbo.CLASS.ClassName
FROM    dbo.SCHOOL INNER JOIN
        dbo.CLASS ON dbo.SCHOOL.SchoolId = dbo.CLASS.SchoolId
  
```

A red arrow points to the SQL code with the text 'The Code is automatically generated'.

SchoolName	ClassName
TUC	SCE1
TUC	SCE2
TUC	PT1
TUC	PT2

A red arrow points to the results table with the text 'Show the results'.

**Step 4:** Save the VIEW:



Step 5: Use the VIEW in a query:

```
select * from SchoolView
```

	SchoolName	ClassName
1	TUC	SCE1
2	TUC	SCE2
3	TUC	PT1
4	TUC	PT2
5	NTNU	A1
6	NTNU	A2