Views and Stored Procedures

QA
POWERING POTENTIAL
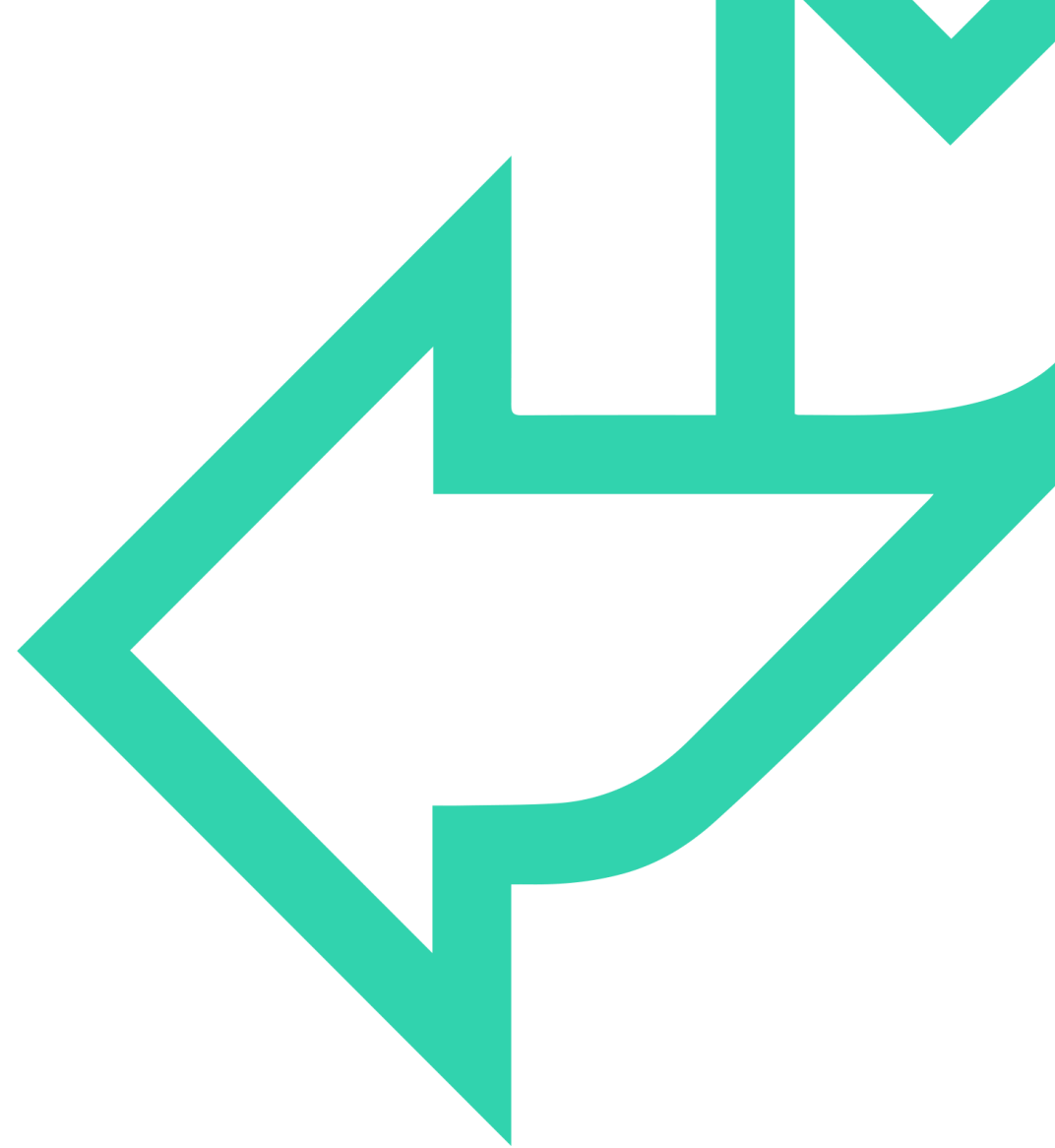
Version 1.5

Overview

- Views
- Using views
- Stored procedures
- Using stored procedures

At the end of this module you will be able to:

- use a predefined view
- create a simple view
- use a predefined stored procedure
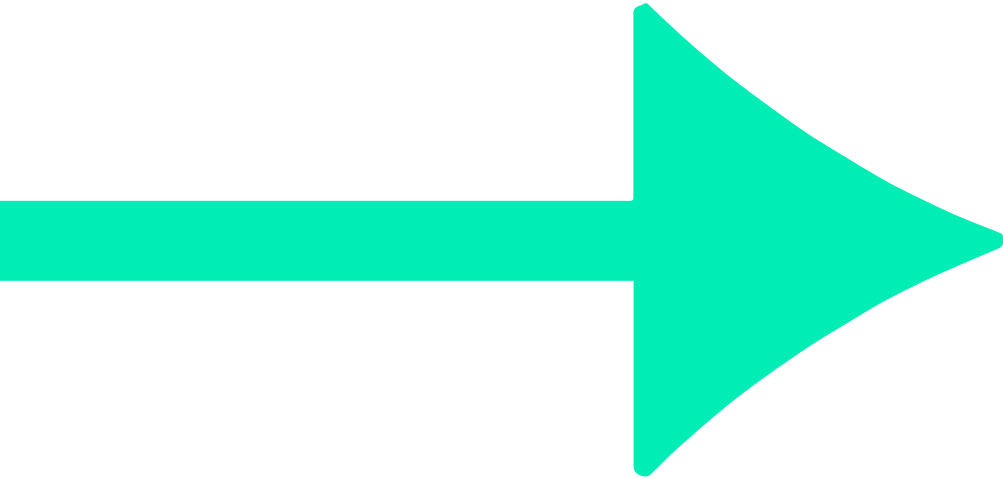
OBJECTIVES

Views

Views

- **Stored select statements**
- **Act just like tables**
- **Benefits:**
  - Reusable
  - Simplify complex queries
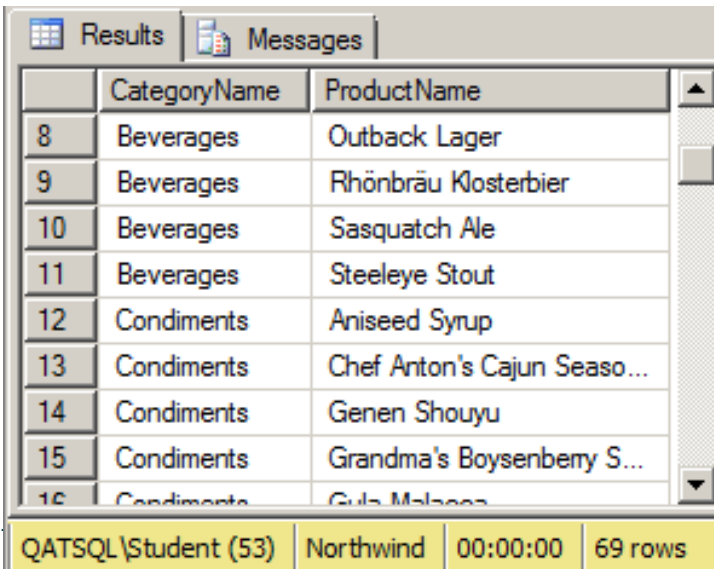 - Limit access to sensitive data

Using views

Using views

```sql
SELECT
  CategoryName,
  ProductName
FROM
  dbo.Products AS p
JOIN
  dbo.Categories AS c
ON
  p.CategoryID =
  c.CategoryID
WHERE
  p.Discontinued = 0
ORDER BY
  CategoryName,
  ProductName
```

```sql
SELECT
  CategoryName,
  ProductName
FROM
  dbo.[Products by Category]
ORDER BY
  CategoryName,
  ProductName
```

	CategoryName	ProductName
8	Beverages	Outback Lager
9	Beverages	Rhönbräu Klosterbier
10	Beverages	Sasquatch Ale
11	Beverages	Steeleye Stout
12	Condiments	Aniseed Syrup
13	Condiments	Chef Anton's Cajun Seaso...
14	Condiments	Genen Shouyu
15	Condiments	Grandma's Boysenberry S...
16	Condiments	Gula Malacca

QATSQL\Student (53) | Northwind | 00:00:00 | 69 rows

Using views (2)

```
SELECT
    p.ProductID,
    p.ProductName,
    SUM(Quantity) AS TotalSales
FROM
    dbo.[Current Product List] AS p
JOIN
    dbo.[Order Details] AS od
ON
    p.ProductID = od.ProductID
GROUP BY
    p.ProductID, p.ProductName
```

	Results		Messages		
	ProductID	ProductName		TotalSales	
1	23	Tunnbröd		580	
2	46	Spegesild		548	
3	69	Gudbrandsdalsost		714	
4	75	Rhönbräu Klosterbier		1155	
5	15	Genen Shouyu		122	
6	3	Aniseed Syrup		328	
7	52	Filo Mix		500	
8	72	Mozzarella di Giovanni		806	
9	66	Louisiana Hot Spiced Okra		239	

RTM) | QATSQL\Student (51) | Northwind | 00:00:00 | 69 rows
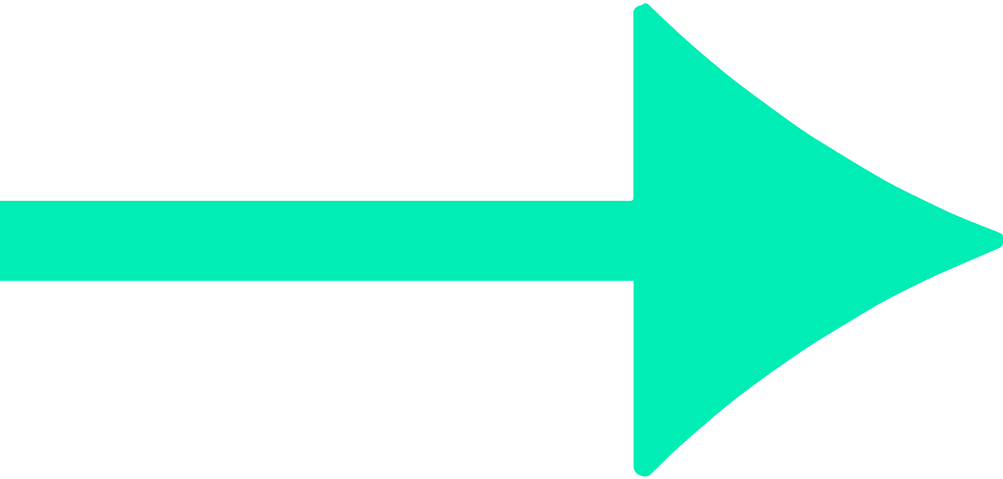
Stored procedures

Stored procedures

- **Set of SQL statements stored in the database**
- **Can accept parameters**
- **Can return records**
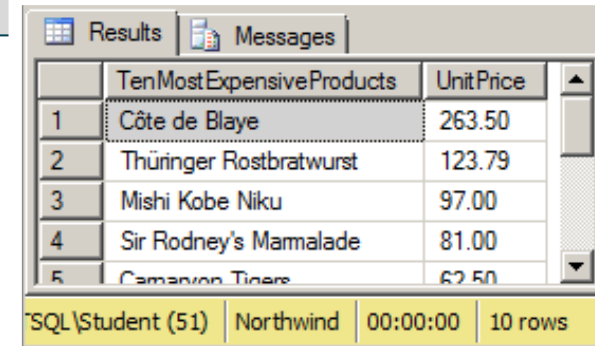- **Can modify the database**
- **Can perform complex logic**

Using stored procedures

Using stored procedures

- **EXECUTE** *<<procedure-name>>*
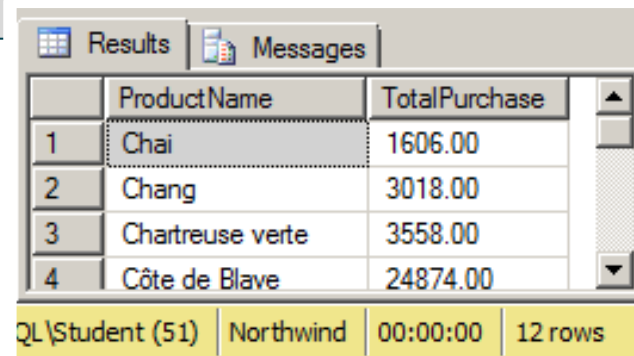- **EXEC** *<<procedure-name>> param1, …, paramN*

```
EXEC dbo.[Ten Most Expensive Products]
```



```
EXEC dbo.SalesByCategory
    'Beverages', 1996
```

HANDS-ON LAB

- Using views
- Creating views
- Using stored procedures

Review

- Views
- Using views
- Stored procedures
- Using stored procedures