

Slide 1: Views



Slide 2: Learning Objectives

## Learning Objectives

Discuss how and when to use views with queries

Explain how to use the AS function with views

Explain the benefits and limitations of using views

## Slide 3: Overview of Views

# Overview of Views

A stored query

Can add or remove columns without changing schema

Use it to encapsulate queries

The view will be removed after database connection has ended

```
CREATE [TEMP] VIEW [IF NOT EXISTS]  
view_name(column-name-list)  
AS  
select-statement;
```

## Slide 4: Creating a View

# Creating a View

```

CREATE VIEW my_view
AS
SELECT
r.regiondescription
,t.territorydescription
,e.Lastname
,e.Firstname
,e.Hiredate
,e.Reportsto
FROM Region r
INNER JOIN Territories t on r.regionid = t.regionid
INNER JOIN Employeeterritories et on t.TerritoryID = et.TerritoryID
INNER JOIN Employees e on et.employeeid = e.EmployeeID

```

	regiondescription	territorydescription	Lastname	Firstname	Hiredate	Reportsto
1	Eastern	Wilton	Davolio	Nancy	5/1/1992 12:00:00 AM	2
2	Eastern	Neward	Davolio	Nancy	5/1/1992 12:00:00 AM	2
3	Eastern	Westboro	Fuller	Andrew	8/14/1992 12:00:00 AM	NULL
4	Eastern	Bedford	Fuller	Andrew	8/14/1992 12:00:00 AM	NULL
5	Eastern	Georgetow	Fuller	Andrew	8/14/1992 12:00:00 AM	NULL
6	Eastern	Boston	Fuller	Andrew	8/14/1992 12:00:00 AM	NULL
7	Eastern	Cambridge	Fuller	Andrew	8/14/1992 12:00:00 AM	NULL
8	Eastern	Braintree	Fuller	Andrew	8/14/1992 12:00:00 AM	NULL
9	Eastern	Louisville	Fuller	Andrew	8/14/1992 12:00:00 AM	NULL
10	Southern	Atlanta	Leverling	Janet	4/1/1992 12:00:00 AM	2
11	Southern	Savannah	Leverling	Janet	4/1/1992 12:00:00 AM	2
12	Southern	Orlando	Leverling	Janet	4/1/1992 12:00:00 AM	2
13	Southern	Tampa	Leverling	Janet	4/1/1992 12:00:00 AM	2
14	Eastern	Rockville	Peacock	Margaret	5/3/1993 12:00:00 AM	2
15	Eastern	Greensboro	Peacock	Margaret	5/3/1993 12:00:00 AM	2
16	Eastern	Cary	Peacock	Margaret	5/3/1993 12:00:00 AM	2
17	Eastern	Providence	Euchanan	Steven	10/17/1993 12:00:00 AM	2
18	Eastern	Morristown	Euchanan	Steven	10/17/1993 12:00:00 AM	2
19	Eastern	Edison	Euchanan	Steven	10/17/1993 12:00:00 AM	2
20	Eastern	New York	Euchanan	Steven	10/17/1993 12:00:00 AM	2
21	Eastern	New York	Euchanan	Steven	10/17/1993 12:00:00 AM	2
22	Eastern	Mellville	Euchanan	Steven	10/17/1993 12:00:00 AM	2
23	Eastern	Fairport	Euchanan	Steven	10/17/1993 12:00:00 AM	2
24	Western	Phoenix	Suyama	Michael	10/17/1993 12:00:00 AM	5
25	Western	Scottsdale	Suyama	Michael	10/17/1993 12:00:00 AM	5

## Slide 5: Creating a View

## Creating a View

```
CREATE VIEW my_view
AS
SELECT
  r.regiondescription
, t.territorydescription
, e.Lastname
, e.Firstname
, e.Hiredate
, e.Reportsto
FROM Region r
INNER JOIN Territories t on r.regionid = t.regionid
INNER JOIN Employeeterritories et on t.TerritoryID = et.TerritoryID
INNER JOIN Employees e on et.employeeid = e.EmployeeID
```

```
SELECT *
FROM my_view
DROP VIEW my_view;
```

## Slide 6: Why Use Views

# Why Use Views

	count(territorydescription)	Lastname	Firstname
1	7	Buchanan	Steven
2	4	Callahan	Laura
3	2	Davolio	Nancy
4	7	Dodsworth	Anne
5	7	Fuller	Andrew
6	10	King	Robert
7	4	Leverling	Janet
8	3	Peacock	Margaret
9	5	Suyama	Michael

Get a count of how many territories each employee has

```
SELECT count(territorydescription)
,Lastname
,Firstname
FROM my_view
GROUP BY Lastname, Firstname;
```