Designing Views to Meet Business Requirements

Gerald Britton

IT SOLUTIONS DESIGNER, SQL SERVER SPECIALIST

@GeraldBritton www.linkedin.com/in/geraldbritton

Overview

- Motivation
- Limitations
- Types of views
- Protecting views
- Persistence
- Updateable views

Motivation for Views

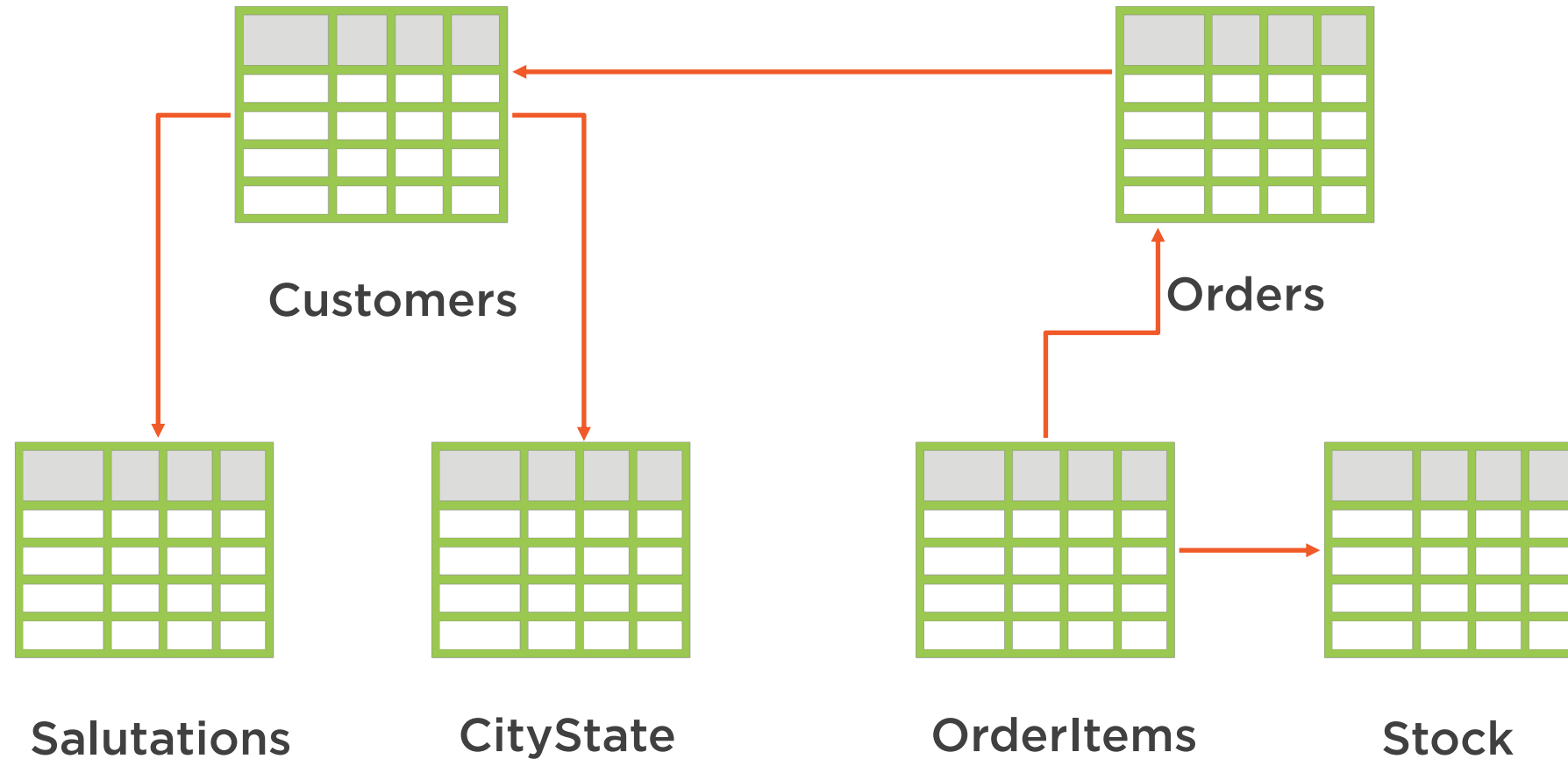Encapsulate a query

Customize results

Security

Backward compatibility

Virtual tables

Bob's Shoes Order System Schema

Customers

Orders

Salutations

CityState

OrderItems

Stock

Demo

Customer list

"In computer science, **information hiding** is the principle of segregation of the design decisions in a computer program that are most likely to change.
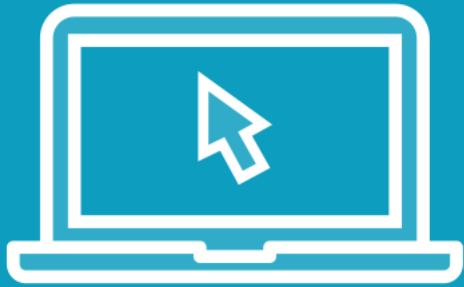
David Parnas, 1972

Houston, we have a problem!

Demo

WITH SCHEMABINDING

WITH SCHEMABINDING

Base tables cannot be changed

SELECT statement must use two-part names

All referenced objects must be in the same database

Updateable Views

Any modifications, including UPDATE, INSERT, and DELETE statements, must reference columns from only one base table

The columns being modified in the view must directly reference the underlying data in the table columns. The columns cannot be derived

The columns being modified are not affected by GROUP BY, HAVING, DISTINCT, PIVOT or UNPIVOT clauses

TOP or OFFSET clause is not used anywhere in the select statement of the view together with the WITH CHECK OPTION clause

Demo

Updateable views

Summary

Views as virtual tables

WITH SCHEMABINDING

Updateable views

WITH CHECK OPTION