

# Improving Team Collaboration using Database Projects and Azure DevOps

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# SQL Saturday New York City 2023



## A BIG Thank You to our Sponsors

### Platinum



### Gold



### Bronze



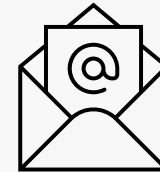
# About me

BI Teamlead – X<sup>2</sup>O

Core member @ dataMinds



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@Oli\_VSteenlandt

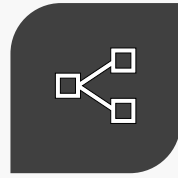
# Schedule



Current  
Situation



Moving  
forward



How to get  
started?



What's  
next?



Summary

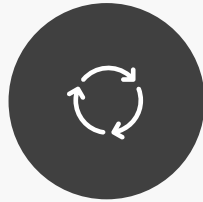
# Current Situation

Environments



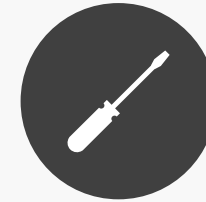
Development  
Production

Process



Tracking changes  
manually

Tools



SQL Server  
Management  
Studio

# Use cases from the field (1/4)

## Moving Big Projects to Production





# Use cases from the field (2/4)

Priority changes



# Use cases from the field (3/4)

Unwanted changes in Production





Use cases from the  
field (4/4)

Code went missing



# Summary - What goes wrong?

Human Mistake

Team Communication

Code management

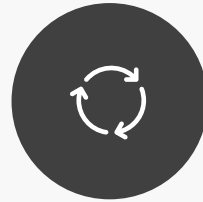
# New Situation

Environments



Development  
Acceptance  
Production

Process



Automatic  
Change Tracking

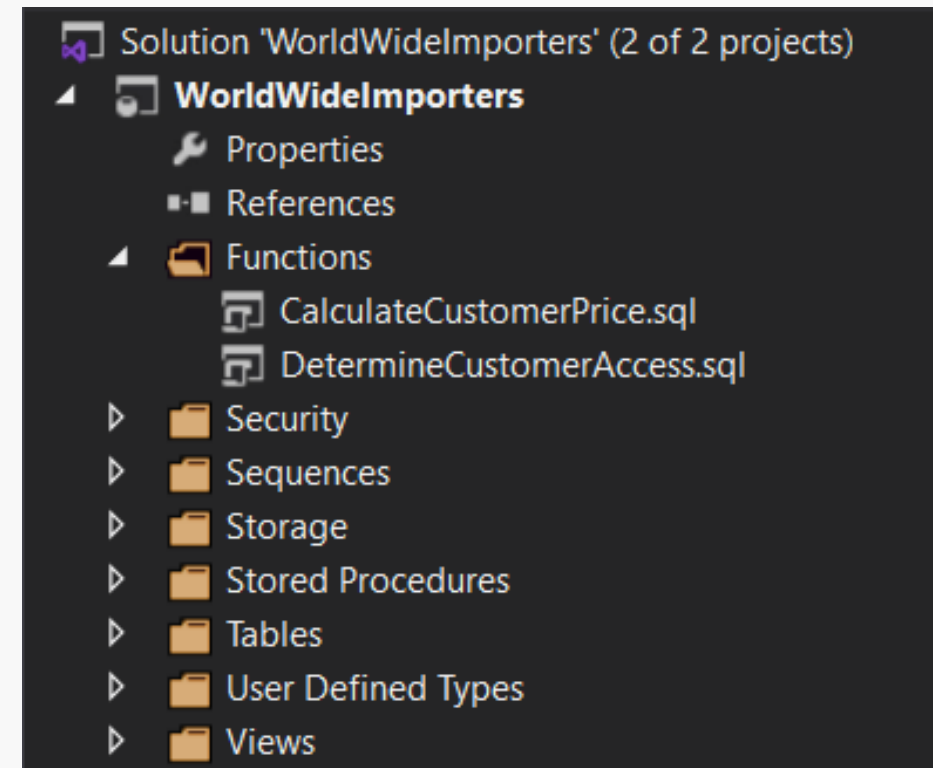
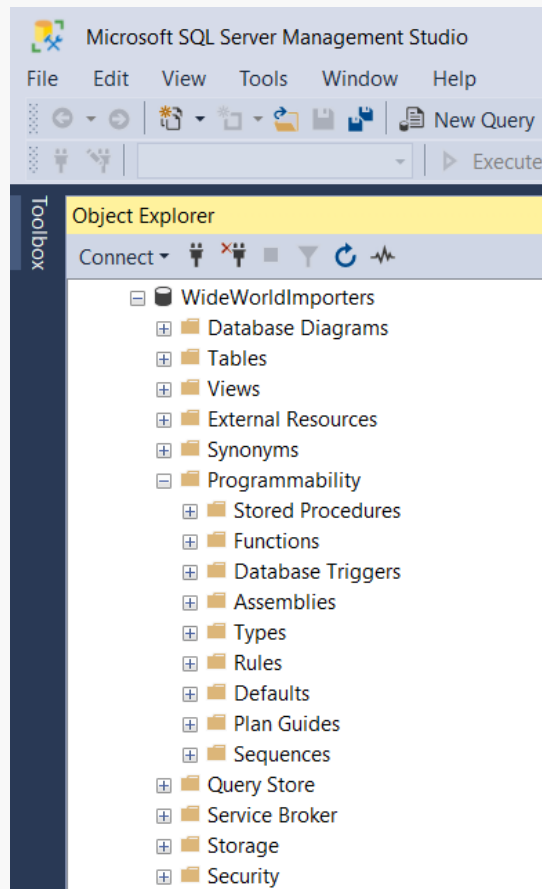
Tools



GIT  
Azure DevOps  
Visual Studio  
(Azure Data Studio)  
SSMS

# Database Projects

## Project Oriented Database Development





# Database Projects

Database names in scripts

Indexes

Publishing Profiles

# Azure DevOps

Repos

(Pipelines)

(Test Plans)

(Artifacts)

(Boards)

# Repos - Git

Distributed Version Control System

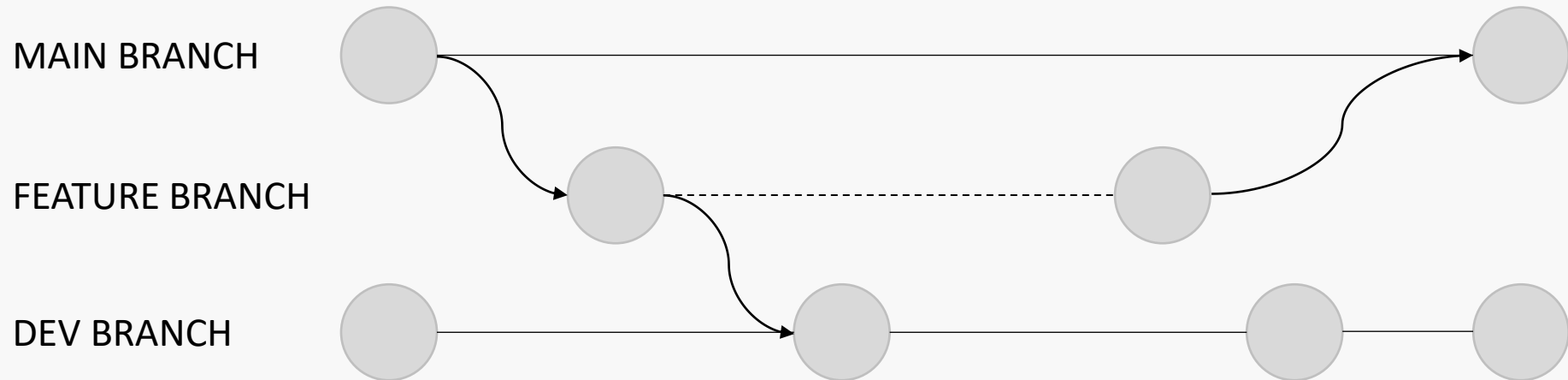
Branching

Most important Commands

- Pull
- Push
- Merge

# Azure DevOps – Repos

## >Branching / Feature





# Source Control - Challenges

Merge Conflicts (.sqlproj file)

Pull → Merge

Branch Maintenance

People

# Demo



# Moving Forward

Database Project Setup ✓

Azure DevOps Setup ✓

Branching ✓

Using Pull Requests ✓

Test Automation

Deployment Automation

# Benefits & Challenges

## Benefits

- Easy to setup

- Clear Changelog

- Efficiency of Deploying

- Pull Requests

- Improving Development Quality

## Challenges

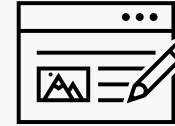
- Changing habits (way of working)



# Questions?

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Feedback?

oliviersvs.be/feedback



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Slides?

Github.com/oliviersvs/sessions