# Improving Team Collaboration using Database Projects and Azure DevOps

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Challenge accepted.



Denny Cherry & Associates Consulting







#### About me

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#### 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)

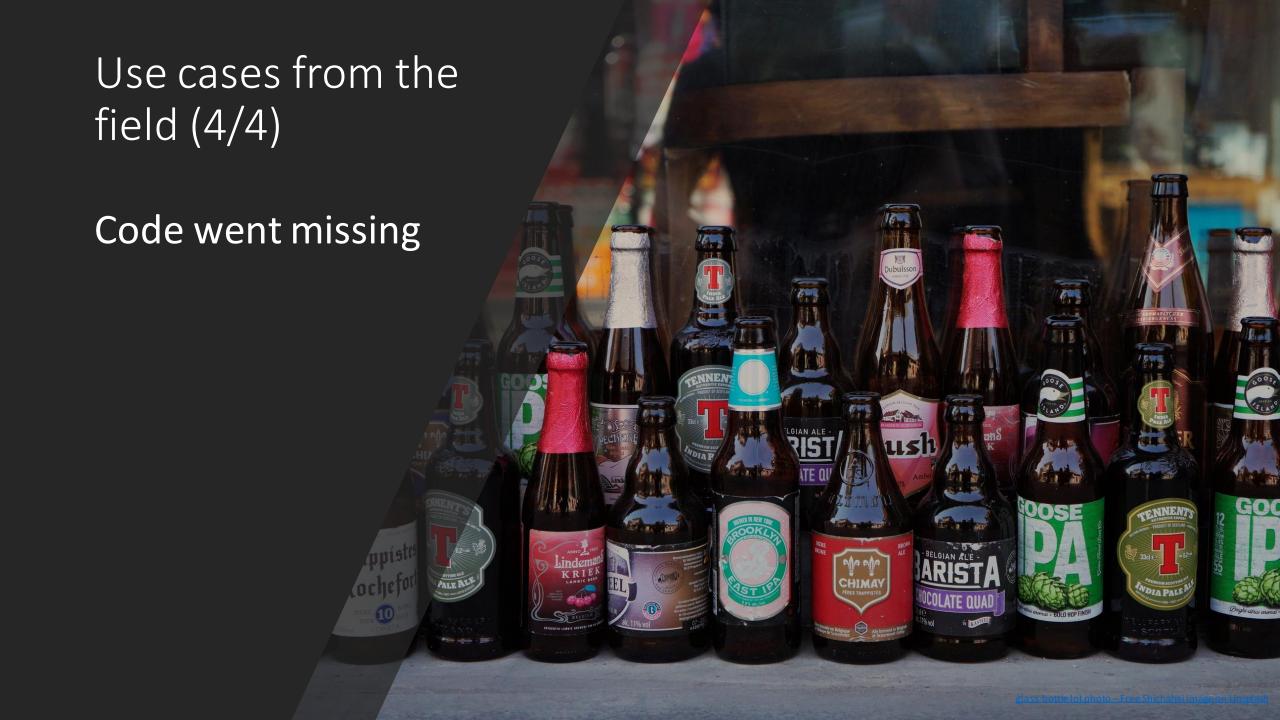
Priority changes



Use cases from the field (3/4)

Unwanted changes in Production





# Summary - What goes wrong?

**Human Mistake** 

**Team Communication** 

Code management

#### **New Situation**

**Environments** 



Development Acceptance Production **Process** 

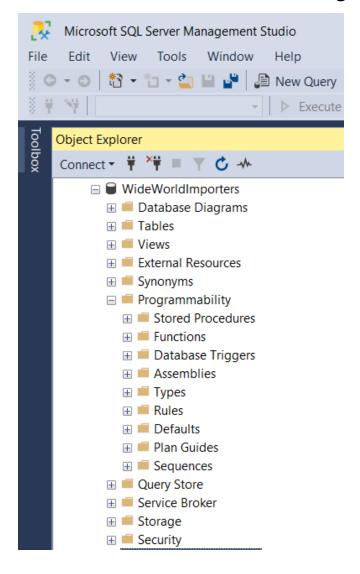


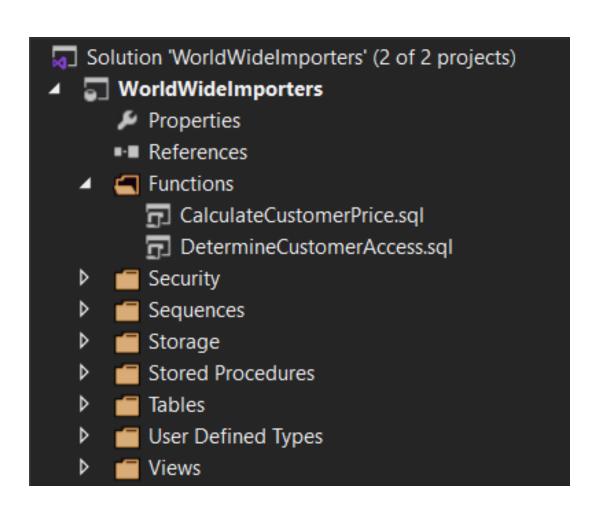
Automatic Change Tracking Tools



GIT
Azure DevOps
Visual Studio
(Azure Data Studio)
SSMS

## **Database Projects**





# **Database Projects**

Database names in scripts

Indexes

**Publishing Profiles** 

#### Azure DevOps

```
Repos
(Pipelines)
(Test Plans)
(Artifacts)
(Boards)
```

# Repos - Git

Distributed Version Control System

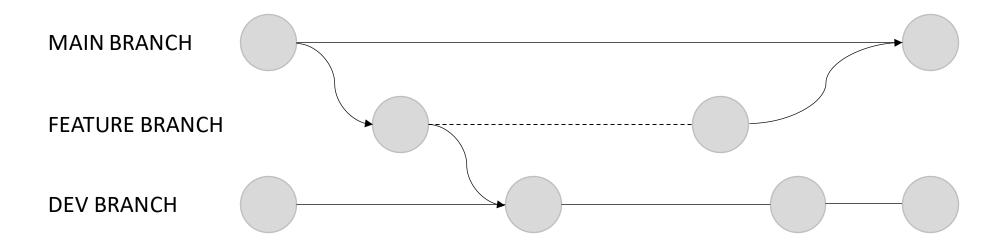
Branching

**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 🍑

Branching **S** 

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?

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