Real-world CI/CD for SQL Server using Azure DevOps deep dive
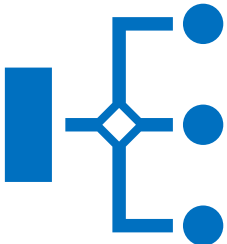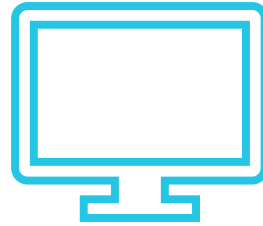
Kevin Chant & Sander Stad

Thank you, partners

KOHERA

element 61
experience & expertise

lytix

bmatix
Act informed

inetum
realdolmen
Positive digital flow

datasense

MICROPOLE
BELUX

LACO

MYRMIDONS

AKABI

Cloubis

datashift

EpicData.

Sparkle

Tabular Editor

solarwinds

MONIN
Database Managed Services

U2U

ae Adapt
and
Enable

ORDINA
Ahead of change

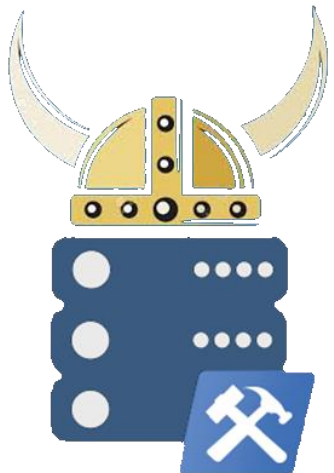tillit
data
shapers

proximus NXT
tech. bizz. people.

For the next 60 minutes

Sander
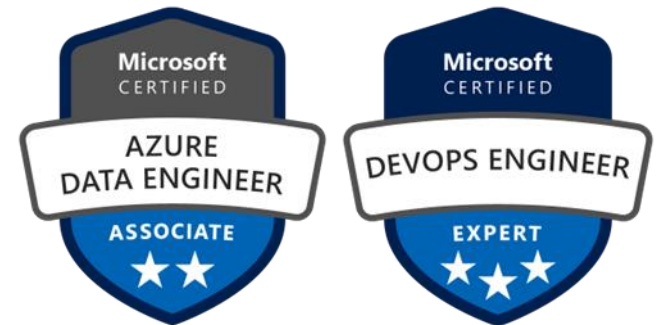# Stad

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sander@sqlstad.nl

github.com/sanderstad

Kevin Chant

- Data Engineering Manager in the Netherlands
- Worked in IT since Windows 95
- Experience in various sectors
- Various certifications, dual-category MVP
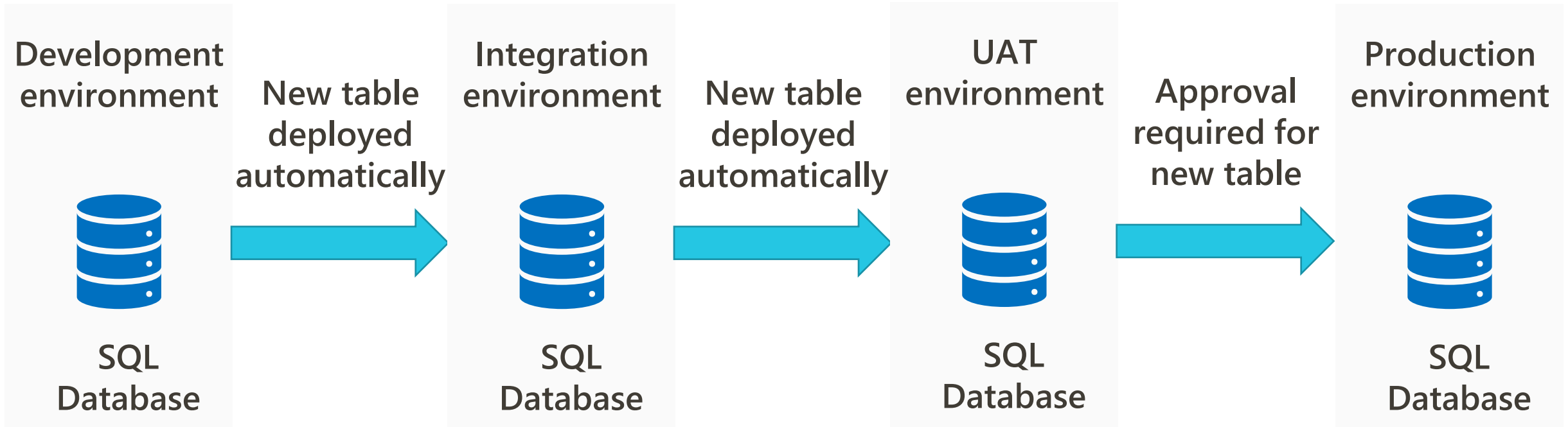
- Twitter/bluesky: @kevchant
- LI: https://www.linkedin.com/in/kevin-chant/
- Blog: https://www.KevinRChant.com
- GitHub: https://github.com/kevchant

SQL Server instances

SQL Server pipeline

Development environment	New table deployed automatically	Integration environment	New table deployed automatically	UAT environment	Approval required for new table	Production environment
SQL Database		SQL Database		SQL Database		SQL Database

Azure Pipeline Agents

- Deal with all processing
- Runs on Windows, Ubuntu or MacOS
- Microsoft or self-hosted
- Microsoft-hosted image same as GitHub runner
- Windows & Linux run on Standard_DS2_v2 images
- macOS images always run in US

Optimal settings

- Microsoft hosted useful for cloud
- Self-hosted for local deployments
- Always self-hosted for custom apps
- Avoid running as service on laptop
- Linux agents have Docker
- Create Agent pool at right level

Demo

Classic pipelines or YAML

Classic Pipeline Pros and Cons

Pros

- GUI-based

- Makes for good demos

Cons

- A few security issues

- Can be tricky to navigate

- Not true Infrastructure as Code

YAML Pipeline Pros and Cons

Pros

- Portable

- Secure

- Easy to troubleshoot

- Can be code reviewed

Cons

- Well, it's YAML

dataMinds Connect

Demos

- Classic pipelines

- YAML pipeline scenarios

- New type of database project

- Migration-based
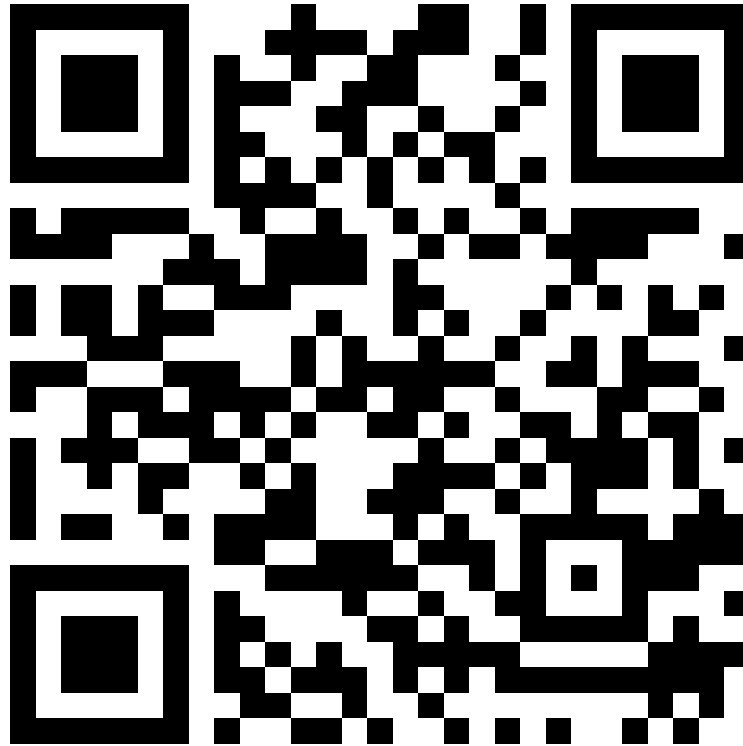
Keep your secrets a secret

Approvals

To recap

Questions?

Session Feedback

https://bit.ly/dMC2023_SessionFeedback

ThankYou

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