SQL Player
Play with data & have fun!

MVP Microsoft® Most Valuable Professional

Kamil Nowiński

SQL Server database SSDT & CI/CD

Kamil Nowiński

Microsoft Data Platform **MVP**
Speaker, blogger, data enthusiast

Group Manager at Avanade UK&I (www.avanade.com)
Almost 20 yrs experience as DEV/BI/(DBA)

Member of the Data Community PL

Project member of „SCD Merge Wizard"

Founder of blog SQLPlayer (www.SQLplayer.net)

SQL Server Certificates:
MCITP, MCP, MCTS, MCSA, MCSE Data Platform,
MCSE Data Management & Analytics

Moreover: Bicycle, Running, Digital photography
@NowinskiK, @SQLPlayer

@NowinskiK

Blog

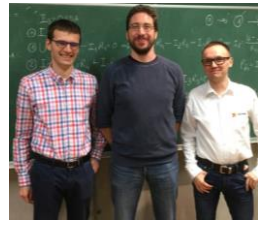
SQL Player
Play with data & have fun!

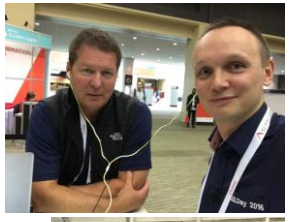
www.SQLPlayer.net

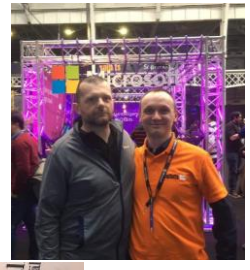
- Technical posts
- Various skill level
- Cheet sheets
- Recommended books
- Many useful other links
- Interviews (Podcast)
- YouTube Channel

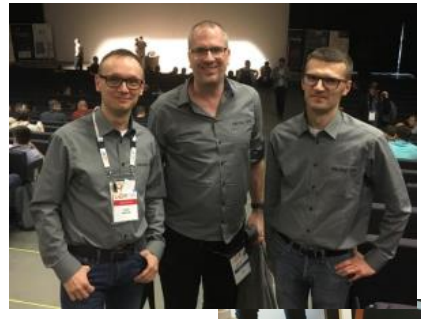
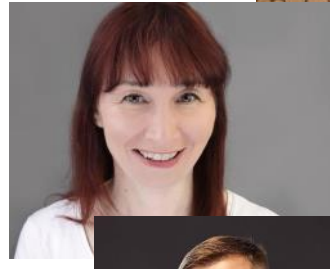
Scan me

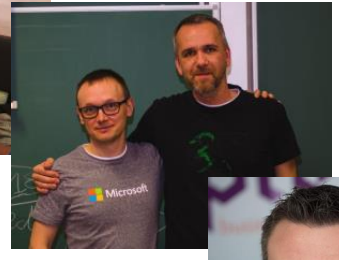
“Ask SQL Family” #podcast

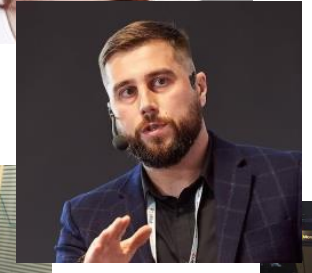


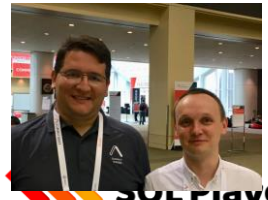


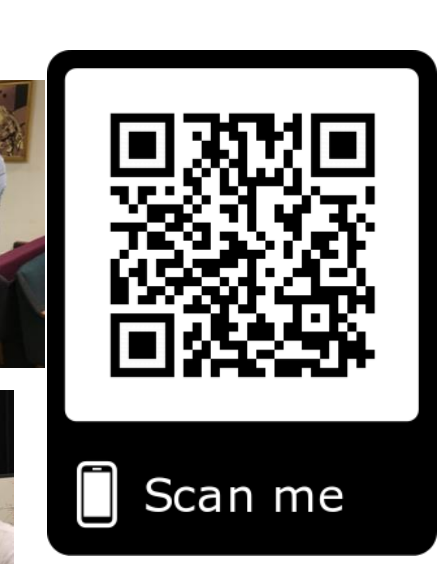










SQL Player
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YouTube

www.SQLPlayer.net/YouTube

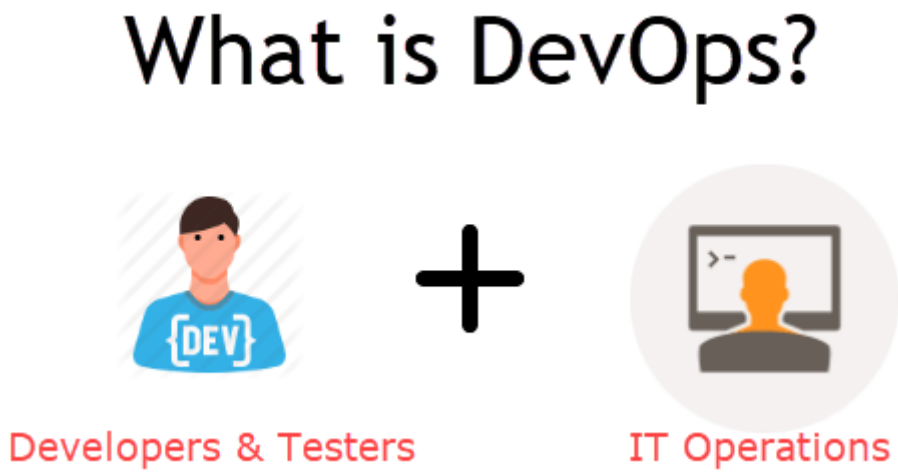
Slides available

github.com
/NowinskiK/CommunityEvents

DevOps – definition (Wikipedia)

DevOps (a clipped compound of "**development**" and "**operations**") is a software engineering **culture and practice** that aims at unifying software development (Dev) and software operation (Ops). The main characteristic of the DevOps movement is to strongly advocate **automation and monitoring** at **all steps** of software construction, from integration, testing, releasing to deployment and infrastructure management.

DevOps aims at shorter development cycles, increased deployment frequency, and more dependable releases, in close alignment with business objectives.



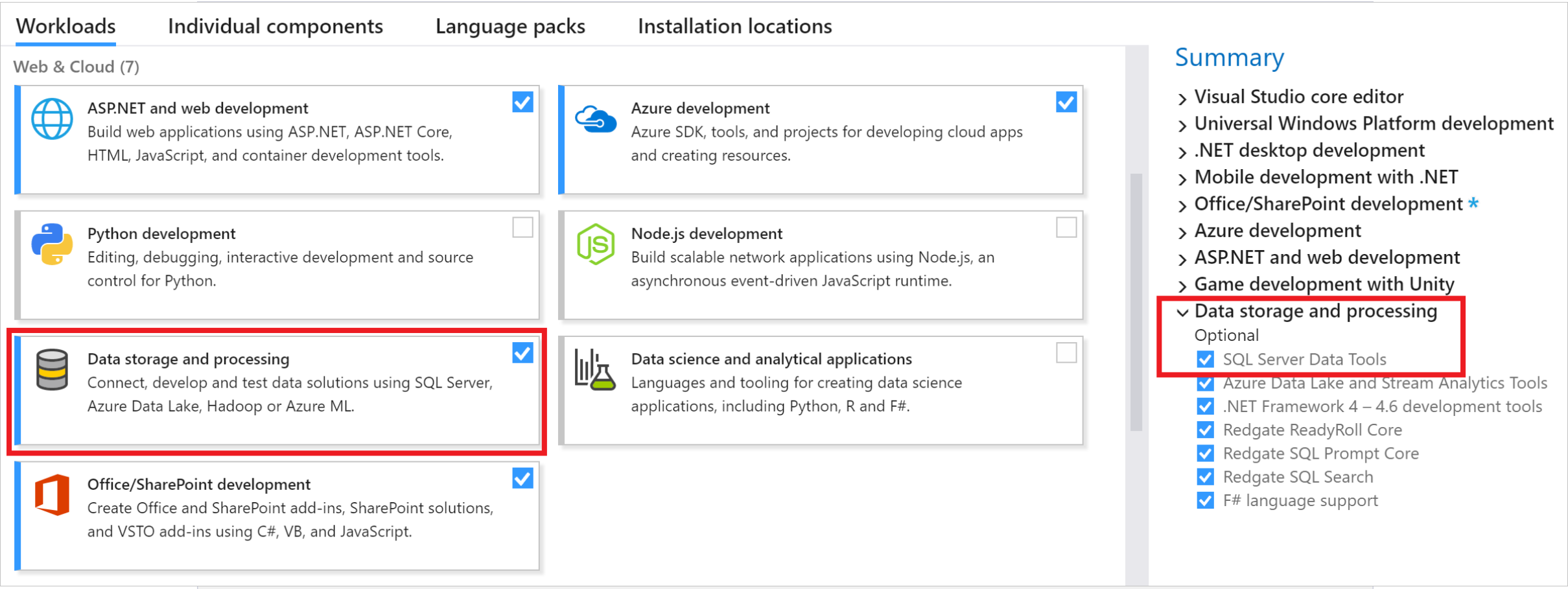
DevOps – how to start?

- Database in source control
- Build CI process
- Deploy (CD) empty database
- Then add the rests:
  - data,
  - security,
  - Unit tests
  - Integration-test (if required)

What is the SSDT?

- SQL Server Data Tools
- Now, it’s a part of Visual Studio
- Free!
- Database project, including:
  - Schema, Stored Procedures, Functions,
  - Tables, Views, Security, CLR
  - ... and much more!

SSDT: How to install?



DEMO – part 1

- Create GIT repo in Azure DevOps
- Create empty database project
- Import database from server

Tips for 8 weeks

Learn with SQL Player

- 1 email / week
- Useful things attached:
  - Cheat sheet
  - Tips
  - Step by step manuals
- Visit:
  - https://learn.sqlplayer.net/database-projects-with-ssdt-dacpac

SCAN ME

Tips for 8 weeks

Learn with SQL Player

SSDT - Tips & Cheat sheets

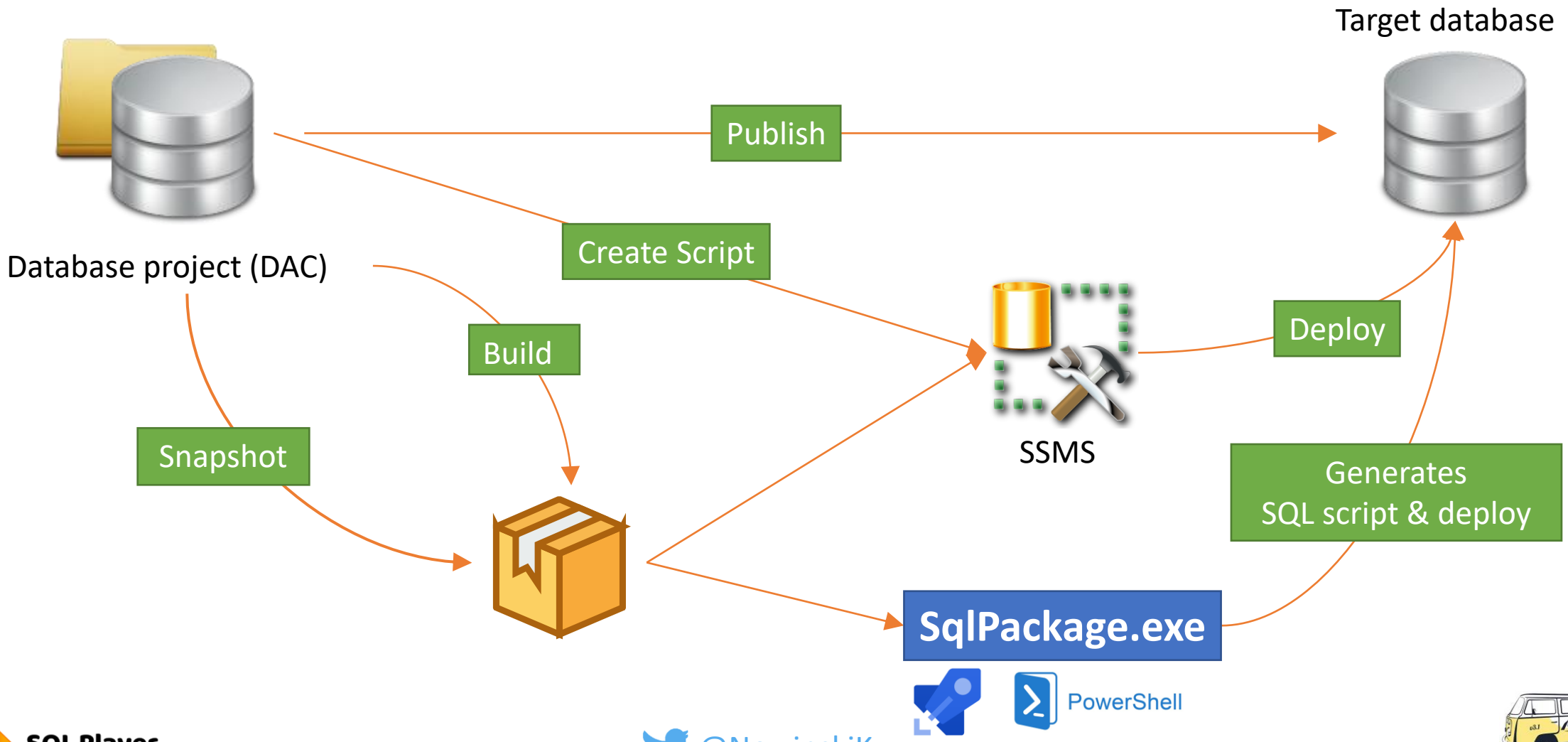
Enroll now to receive a few emails (8 weeks, one a week) with free, useful materials.
Afterwards, you'll have access to them forever!

Get access for free

SCAN ME

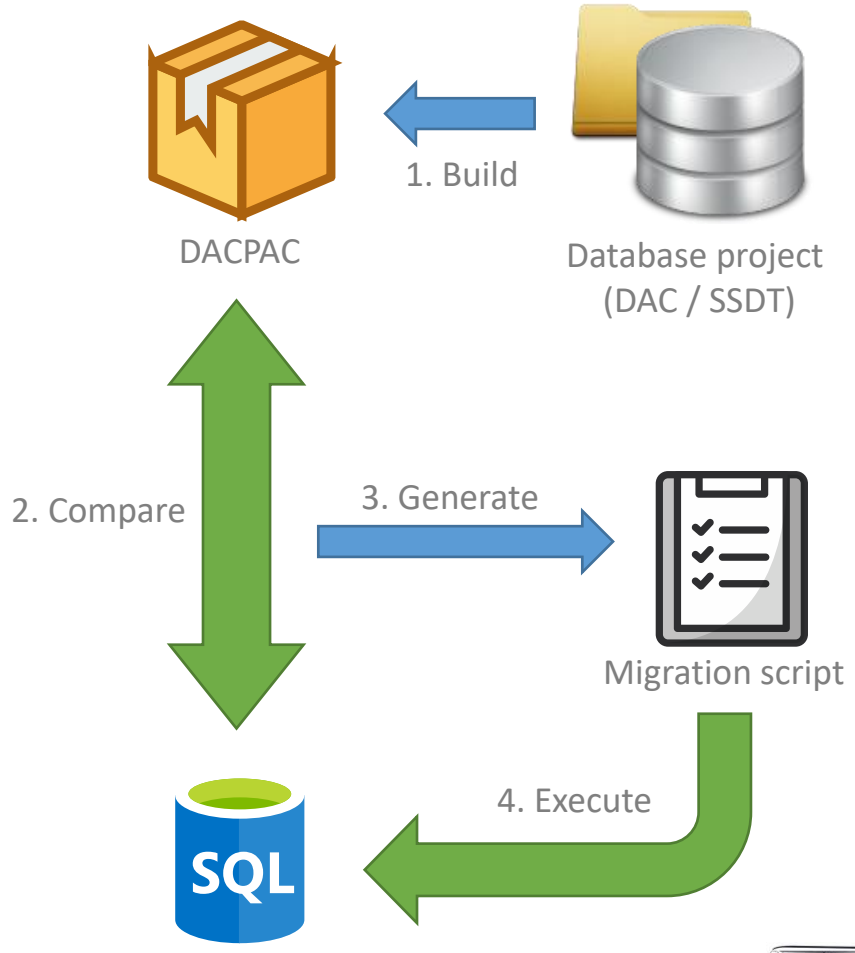
https://learn.sqlplayer.net/ssdt-tips

DACPAC file usage scenarios



SSDT Deployment Pipeline

- Build database project
  - Generates DACPAC
- SQLPackage compares
  - DACPAC to target database
- SQLPackage generates
  - Migration script
  - Execute script against target server



Azure DevOps

- Build database project
  - Generates DACPAC
- SQLPackage compares
  - DACPAC to target database
- SQLPackage generates
  - Migration script
  - Execute script against target server

DEMO – part 2

- Build (Visual Studio)
- Build Pipeline (Azure DevOps)
- Publish (Visual Studio)
- Release Pipeline (Azure DevOps)

SSDT offers much more…

- Database references
- Variables
- Publish Profiles
- Pre & Post-deployment scripts

Resources: https://sqlplayer.net/ssdt

SQL Server Data Tools (SSDT)

All the following posts are in SSDT series on the blog:

- New DB project with SSDT and import existing database
- How to create DACPAC file?
- #TSQL2sDay – How SQLPackage.exe can spoil your deployment
- Tokenization of database project in SSDT
- SSDT (SqlPackage) thread crashes with error when publishing
- Script and deploy the data for database from SSDT project
- 🎬 Deployment of Microsoft SQL database with Azure DevOps (video)

QR Code – link to this page

Microsoft resources:

- 🛠 SQL Server Data Tools (MSDN)
- 🛠 SQLPackage.exe (MSDN)
- 🛠 Data-tier Application Framework (DACFx)
- Microsoft SQL Server Data Tools Team Blog
- GIT – branch organization

Other resources:

Questions?

https://github.com/NowinskiK/ssdt-training/discussions

kamil@nowinski.net
@NowinskiK @SQLPlayer
SQLPlayer.net

https://github.com/NowinskiK/CommunityEvents

Thank you!