Choosing the Right Tool for the Job

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- Worked with MS Data Platform for over 20 years

- Speaker Idol Winner 2019

- Microsoft MVP – Data Platform

- Alter Ego = Amateur Musician

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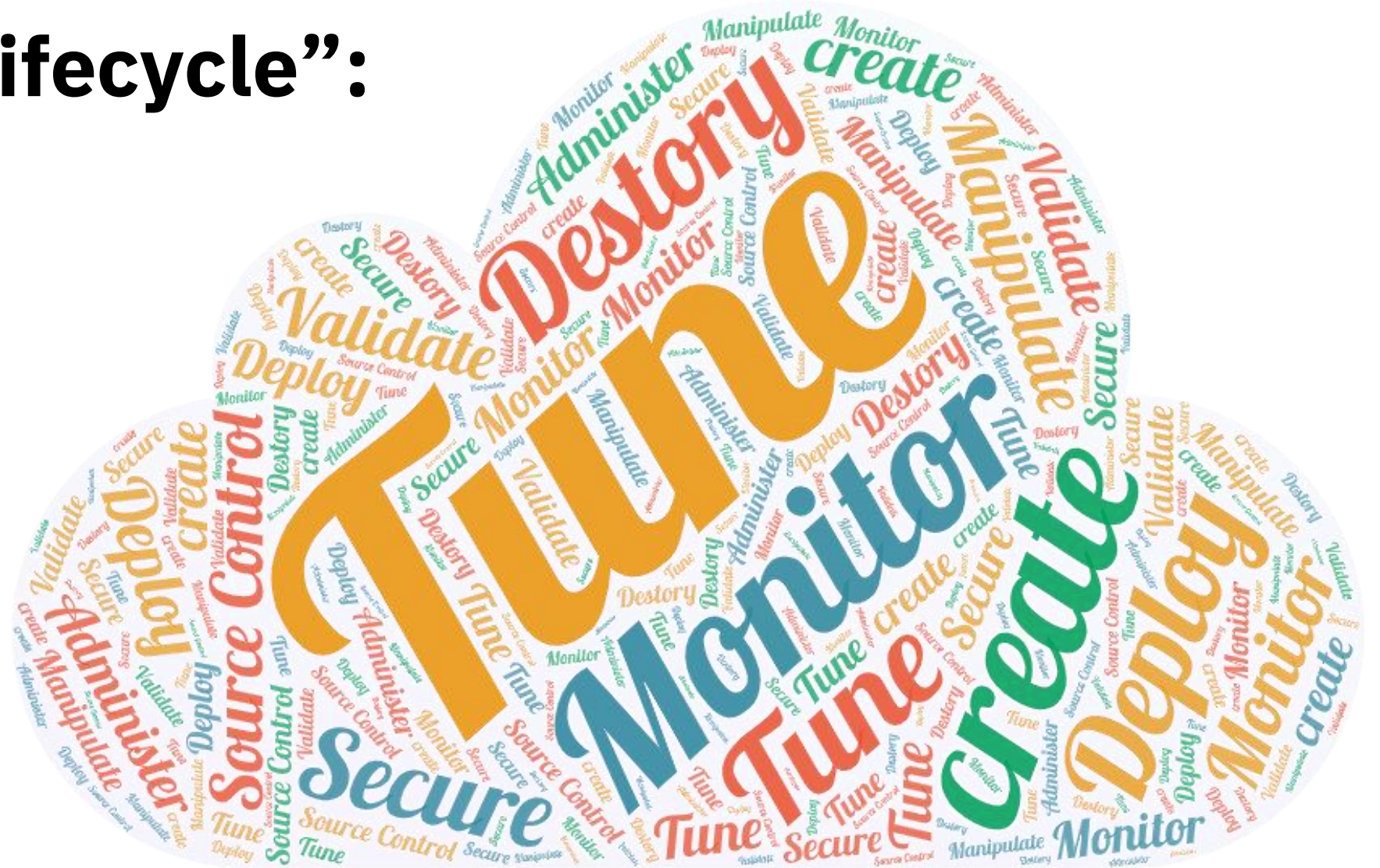**SUMMIT** 2021

Why talk about tools?

- Many options are available.

- We don't always get a chance to explore what's available in the middle of trying to get work done.

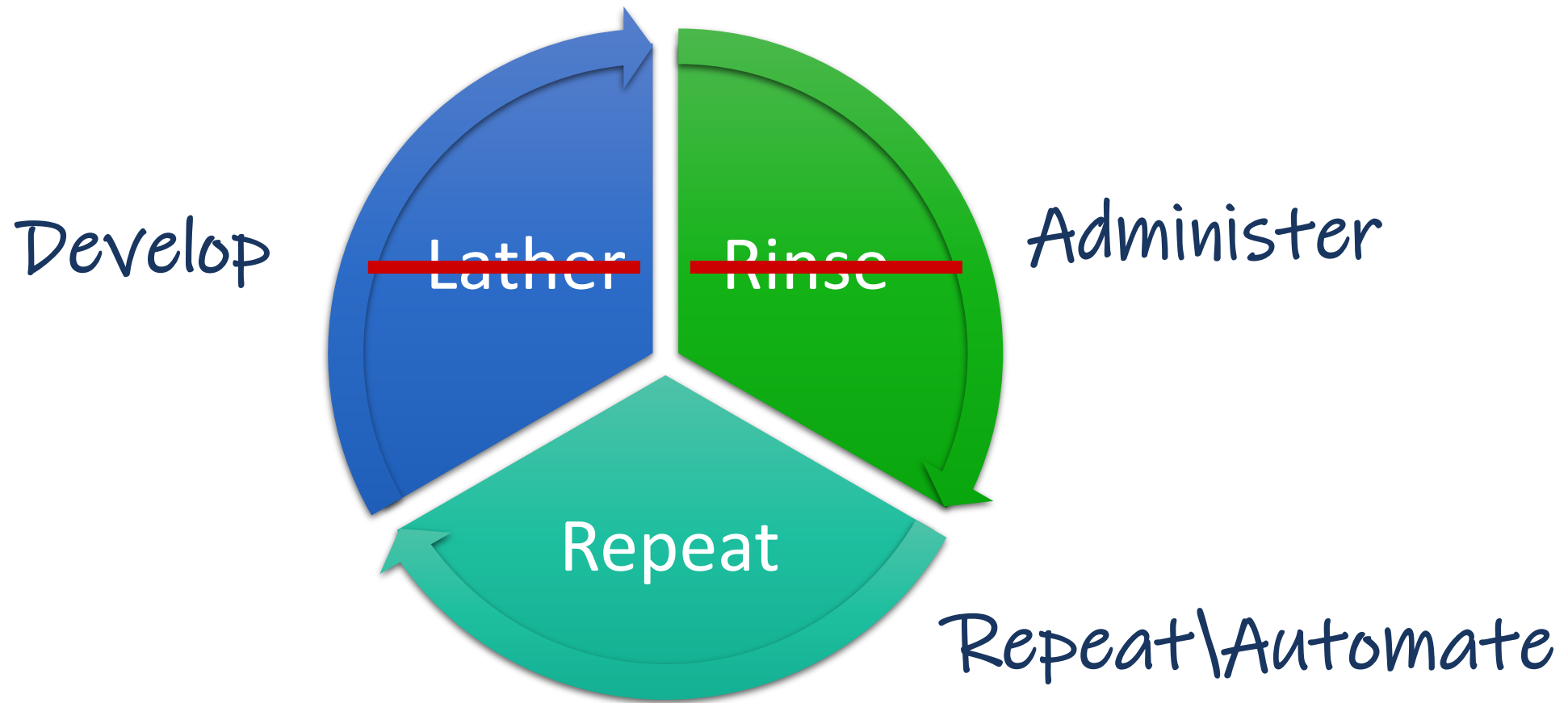- They can help us be more productive.

What are we trying to do?

a.k.a. Job functions

The "Data Lifecycle":

- Create
- Tune
- Monitor
- Deploy
- Secure
- Source Control
- Manipulate
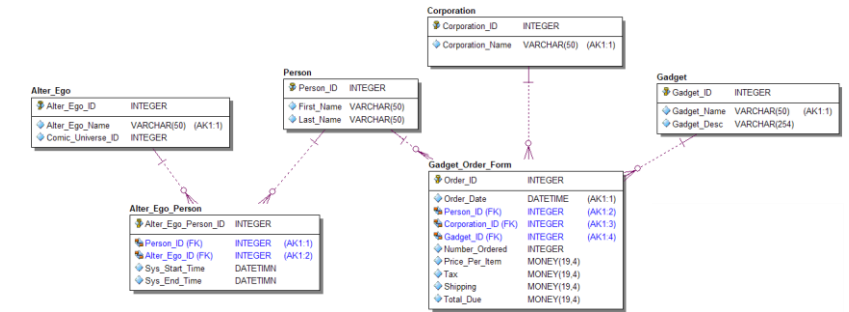- Administer
- Destroy
- Validate

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Let's break it down differently...

Develop

Administer

~~Lather~~ ~~Rinse~~

Repeat

Repeat\Automate

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Develop

- Create objects
  - Tables
  - Views
  - Stored Procs
- Performance Tune
  - Execution Plans
- ETL Loads
- Reports


```
CREATE TRIGGER TR_Alter_Ego_Insert ON Alter_Ego INSTEAD OF UPDATE
AS BEGIN

DECLARE @corp_id int                         | -- Forget Batman, use Iron Man's company
SELECT @corp_id = Corporation_ID FROM Corporation WHERE Corporation_Name = 'Stark Industries'

INSERT INTO Employment (Person_ID, Corporation_ID, Corporate_Position_ID, From_Date)
SELECT ins.Person_ID, @corp_id, cp.Corporate_Position_ID, getdate()
FROM Corporate_Position cp
    JOIN inserted as ins ON cp.Corporate_Position_Name = ins.Alter_Ego_Name

END
GO
```
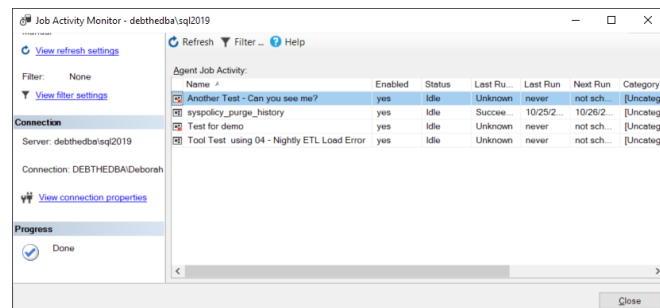
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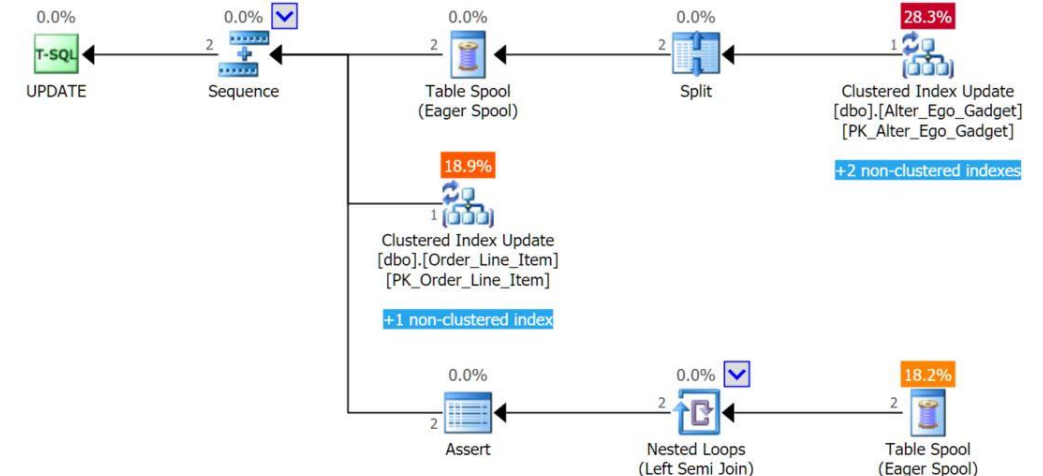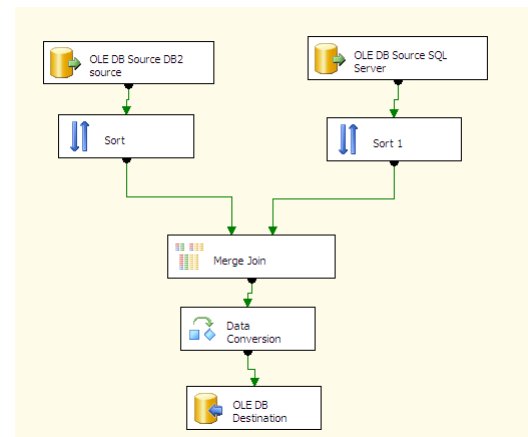
Administer

- Configure

- Backup and Restore

- High Availability \Disaster Recovery

- Security
  - Logins & Users

- Jobs

- Monitor

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Automate

- Release Process
  - CI/CD (Continuous Integration/Continuous Deploy)
  - Migration vs State Based (dacpacs\bacpacs)
  - Source Control

- Runbooks

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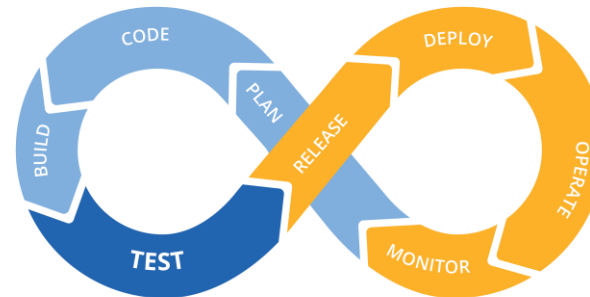
How do we dec**[SUBMIT DEMO]**ols to use?

Let's take a look....

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Summary

Tools and the Functions They Do Best (or Worse)

Tool	Develop	Administer	Automate
Management Studio	✔️	✔️	❌
Visual Studio	✔️	❌	✔️
Azure Data Studio	✔️	❓	✔️
VS Code	✔️	❌	✔️
Plan Explorer	✔️	❌	❌

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Tools and the Functions They Do Best (or Worse) (cont'd)

Tool	Develop	Administer	Automate
dbatools	❓	✅	✅
Notebooks	✅	✅	✅

Takeaways

- If functionality is not there by default, check to see if there's an extension that needs to be installed.

- You may need more than 1 tool. That's OK.

- Keep an eye out for updates.

- Where do you spend most of your time during the "data lifecycle"?

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Resources

- [Azure Data Studio](#)

- [VS Code](#)
    - https://vscode.dev/

- [Visual Studio Data Tools](#)

- Microsoft Documentation
    - [Database Projects](#)
    - [Dacpacs](#)

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Resources Cont'd

- dbatools.io

- SSMS Tools Pack by Mladen Prajdić

- Andy Mallon's SSMS & ADS Shortcuts cheat sheet

- Widgets in ADS (Tracy Boggiano)

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Thank you

Any questions?
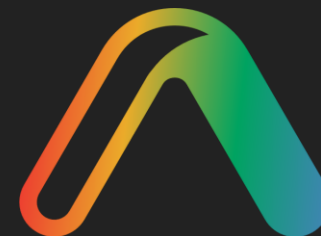
Let me know!

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