

# PASS Data Community SUMMIT 2021

# 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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[www.PASSDataCommunitySummit.com/code-of-conduct](http://www.PASSDataCommunitySummit.com/code-of-conduct)



# Why talk about tools?

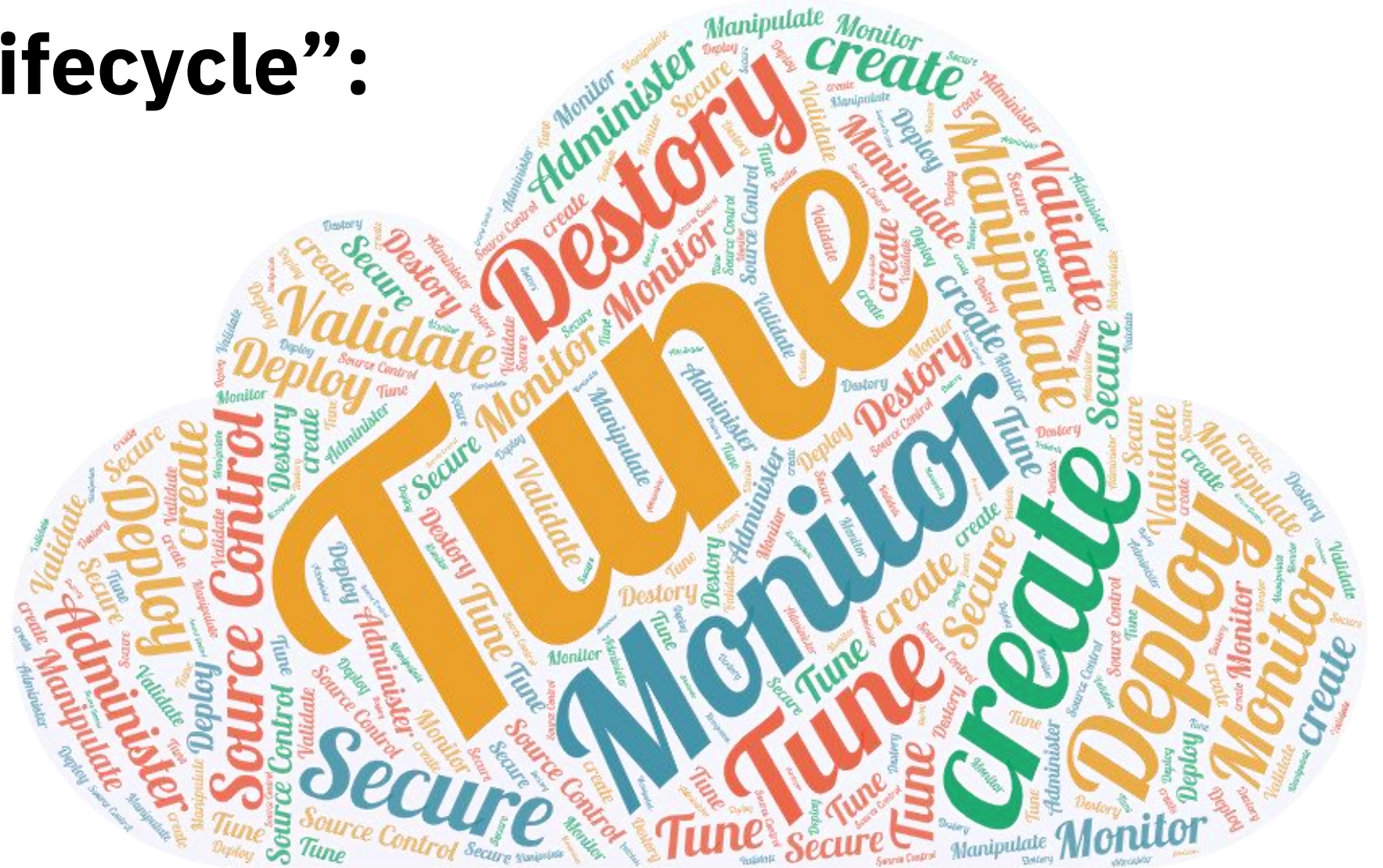
- Many options are available.
- We don't always get a chance to explore what's available in the middle of trying to get work done.
- They can help us be more productive.

# What are we trying to do?

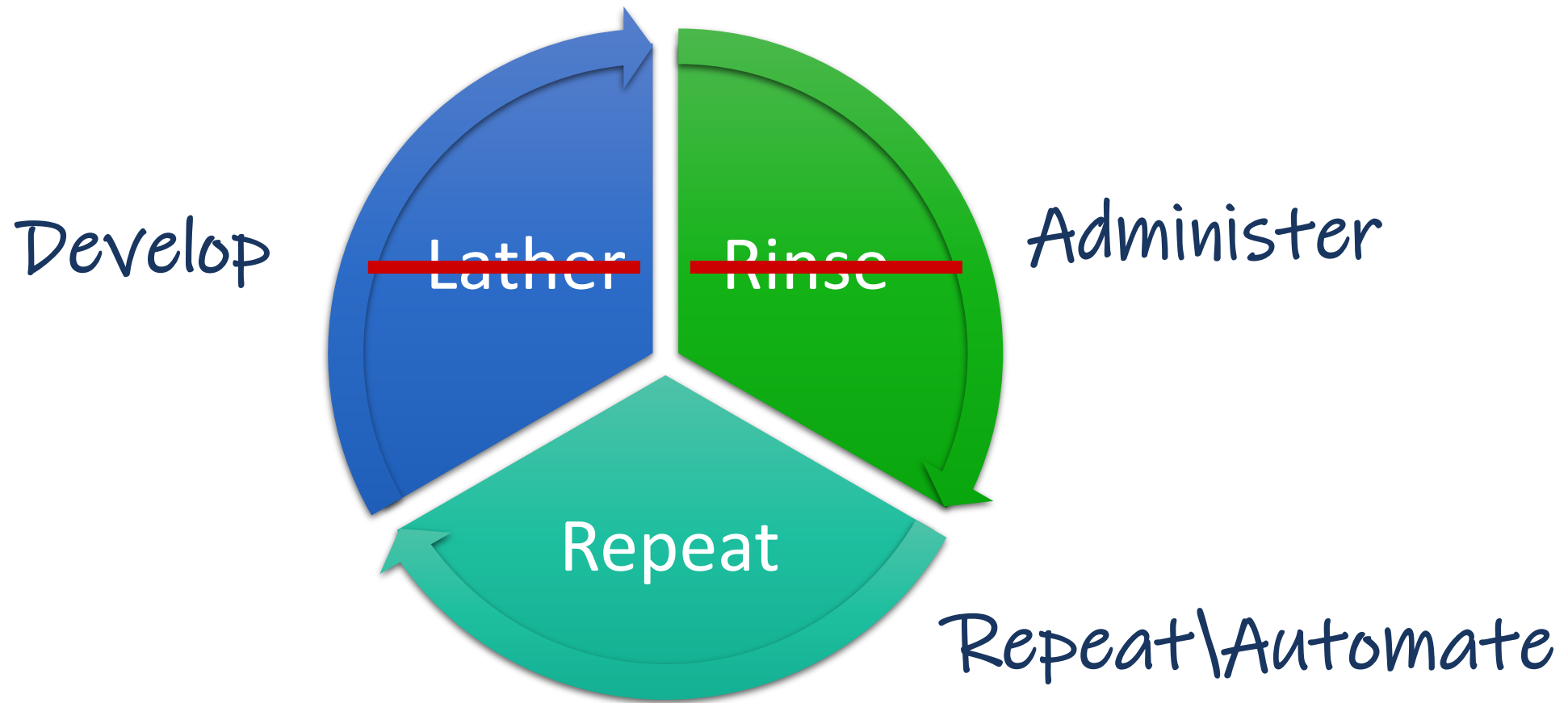
a.k.a. Job functions

# The “Data Lifecycle”:

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



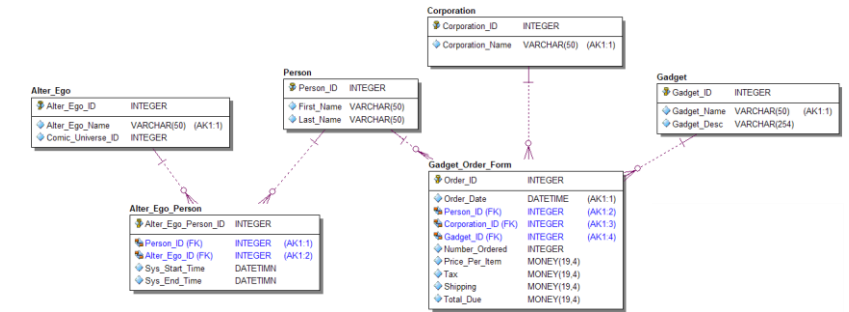
# Let's break it down differently...





# Develop

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



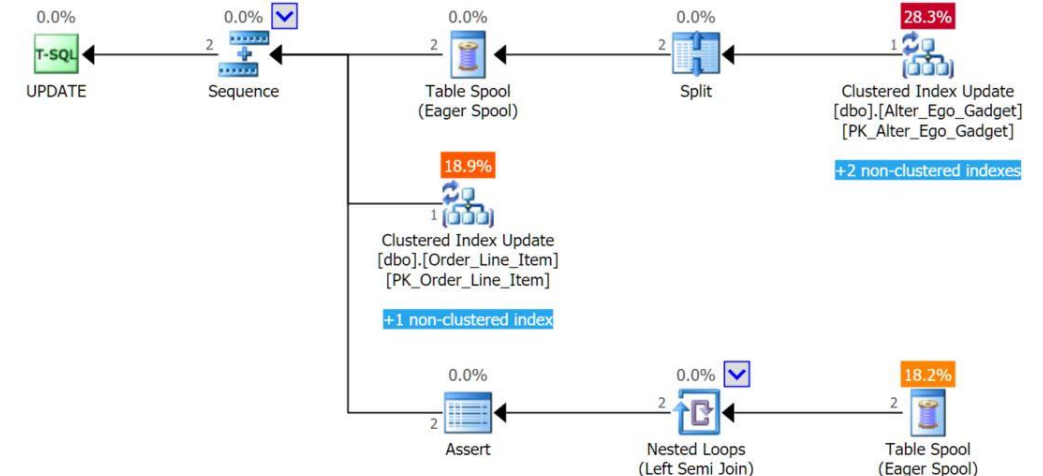
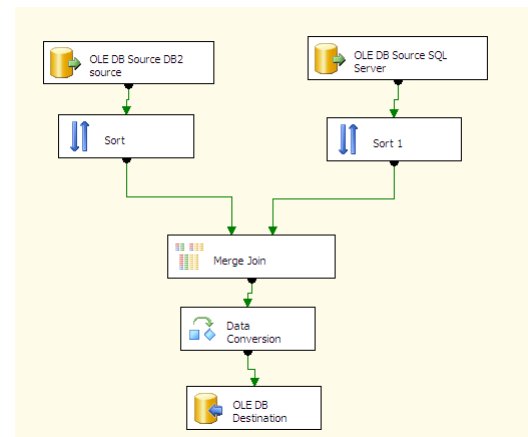
```

CREATE TRIGGER TR_Alter_Ego_Insert ON Alter_Ego INSTEAD OF UPDATE
AS BEGIN

DECLARE @corp_id int
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

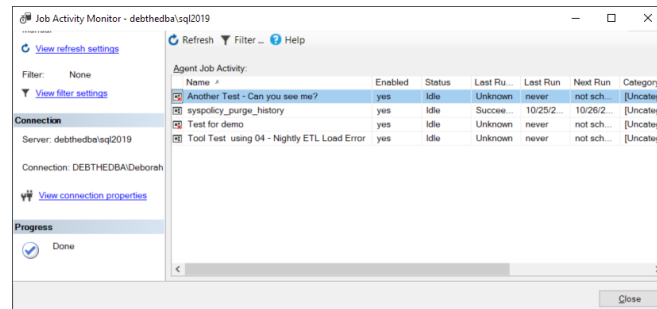
END
GO
  
```





# Administer

- Configure
- Backup and Restore
- High Availability \Disaster Recovery
- Security
  - Logins & Users
- Jobs
- Monitor



# Login

Email:

Password:

☐ Remember Me

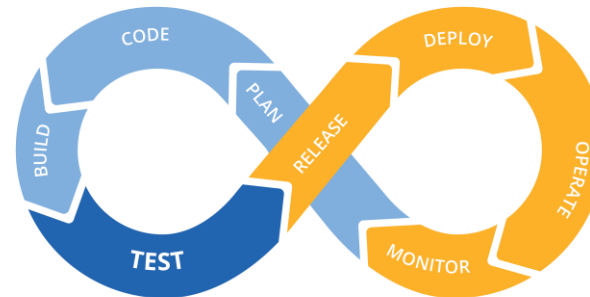
**LOGIN**

dethetbat(sq2019 - Superheroes_Repl,Traze evn_file)							24% CPU
Sorting Events by "batch_test"							
name	timestamp	duration	cpu time	row count	batch test	statement	
sq_batch_starting	2020-12-05 09:11:55	NUL	NUL	NUL	declare @event_type SMALLINT =	NUL	
sq_statement_starting	2020-12-05 09:11:55	NUL	NUL	NUL	declare @event_type SMALLINT = 1, @distributor_major_version SMALLINT		
sq_statement_compl	2020-12-05 09:11:55		5	0	1 NUL	declare @event_type SMALLINT = 1, @distributor_major_version SMALLINT	
sq_statement_starting	2020-12-05 09:11:55	NUL	NUL	NUL	NUL	if object_id(NYrs.sp_rep_generate_subscriber_event) is not null	
sq_statement_compl	2020-12-05 09:11:55		15	0	0 NUL	exec sys.sp_rep_generate_subscriber_event @event_state = @event_type,	
sq_statement_starting	2020-12-05 09:11:55		47	0	NUL	exec sys.sp_rep_generate_subscriber_event @event_state = @event_type,	
sq_statement_compl	2020-12-05 09:11:55		47	0	0 NUL	NUL	
sq_batch_completed	2020-12-05 09:11:55		620	0	1 declare @event_type SMALLINT =	NUL	
sq_batch_starting	2020-12-05 09:12:00	NUL	NUL	NUL	declare @event_type SMALLINT =	NUL	
sq_statement_starting	2020-12-05 09:12:00	NUL	NUL	NUL	declare @event_type SMALLINT = 1, @distributor_major_version SMALLINT		
sq_statement_compl	2020-12-05 09:12:00		16	0	1 NUL	declare @event_type SMALLINT = 1, @distributor_major_version SMALLINT	
sq_statement_starting	2020-12-05 09:12:00	NUL	NUL	NUL	NUL	if object_id(NYrs.sp_rep_generate_subscriber_event) is not null	
sq_statement_compl	2020-12-05 09:12:00		50	0	0 NUL	if object_id(NYrs.sp_rep_generate_subscriber_event) is not null	
sq_statement_starting	2020-12-05 09:12:00	NUL	NUL	NUL	NUL	exec sys.sp_rep_generate_subscriber_event @event_state = @event_type,	
sq_statement_compl	2020-12-05 09:12:00		62	0	0 NUL	exec sys.sp_rep_generate_subscriber_event @event_state = @event_type,	
sq_batch_starting	2020-12-05 09:12:00	NUL	NUL	NUL	declare @event_type SMALLINT =	NUL	
sq_statement_starting	2020-12-05 09:12:00	NUL	NUL	NUL	declare @event_type SMALLINT = 1, @distributor_major_version SMALLINT		
sq_statement_compl	2020-12-05 09:12:00		16	0	1 NUL	declare @event_type SMALLINT = 1, @distributor_major_version SMALLINT	
sq_statement_starting	2020-12-05 09:12:00	NUL	NUL	NUL	NUL	if object_id(NYrs.sp_rep_generate_subscriber_event) is not null	

# Automate



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



**How do we decide which tools to use?**









Let's take a look....

# 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	✓	✗	✗

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

Tool	Develop	Administer	Automate
dbatools			
Notebooks			

# Takeaways

- If it starts with “Azure”, you may still need the portal for some things.
- 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”?



# Resources

- [Azure Data Studio](#)
- [VS Code](#)
  - <https://vscode.dev/>
- [Visual Studio Data Tools](#)
- Microsoft Documentation
  - [Database Projects](#)
  - [Dacpacs](#)

# Resources Cont'd

- [dbatools.io](https://dbatools.io)
- [SSMS Tools Pack](#) by Mladen Prajdić
- Andy Mallon's [SSMS & ADS Shortcuts cheat sheet](#)
- [Widgets in ADS](#) (Tracy Boggiano)

# Thank you

Any questions?

Let me know!

**Deborah Melkin**

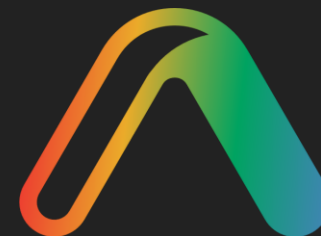
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