



Databases: The anchor in the CI/CD Process

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Driving Quality

- Database changes viewed thru the lens of Quality
 - Quality → “Flawless”
 - Functional
 - Repeatable
 - Reliable/Stable
 - FAST!



Triathlons

- 3 Stage Athletic Event
 - Swim
 - Bike
 - Run
- A need to get help to go faster
 - Speed, Reliability, Repeatability



Just like the swim was my Achilles Heel, the database can be the Achilles Heel of the SDLC

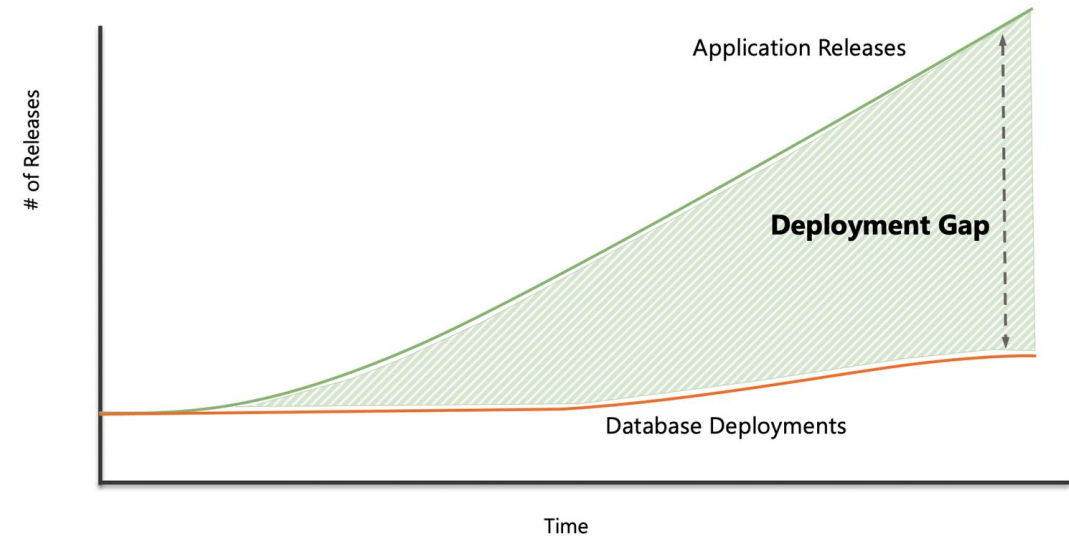
Is it about the Database then?

- Problem
 - Dissatisfaction with the database
 - DBAs are left out
- Solution
 - Recognize the existence of an issue
 - Invite DBAs to the DevOps party
 - And tell them WHY



WHY?

- Why bring CI/CD & DevOps to the database?
 - The Deployment Gap is growing
 - Application code deployment vs Database code deployment
 - Database releases become the bottleneck
 - It's time for a different solution
 - Treat database code just like app code



Liquibase

- Open source database migration tool
- Easy & effortless way to track, manage, version & deploy database changes
 - Flexible Schema Change
 - Auto generated scripts
 - Repeatable Migrations
 - Integrations & Extensions
 - Rollbacks
 - Real Time Monitoring & Visibility



Liquibase.org

How does this help?

- Quality
 - Database deployments will be -
 - More Reliable
 - More Repeatable
 - Faster
 - Functionality



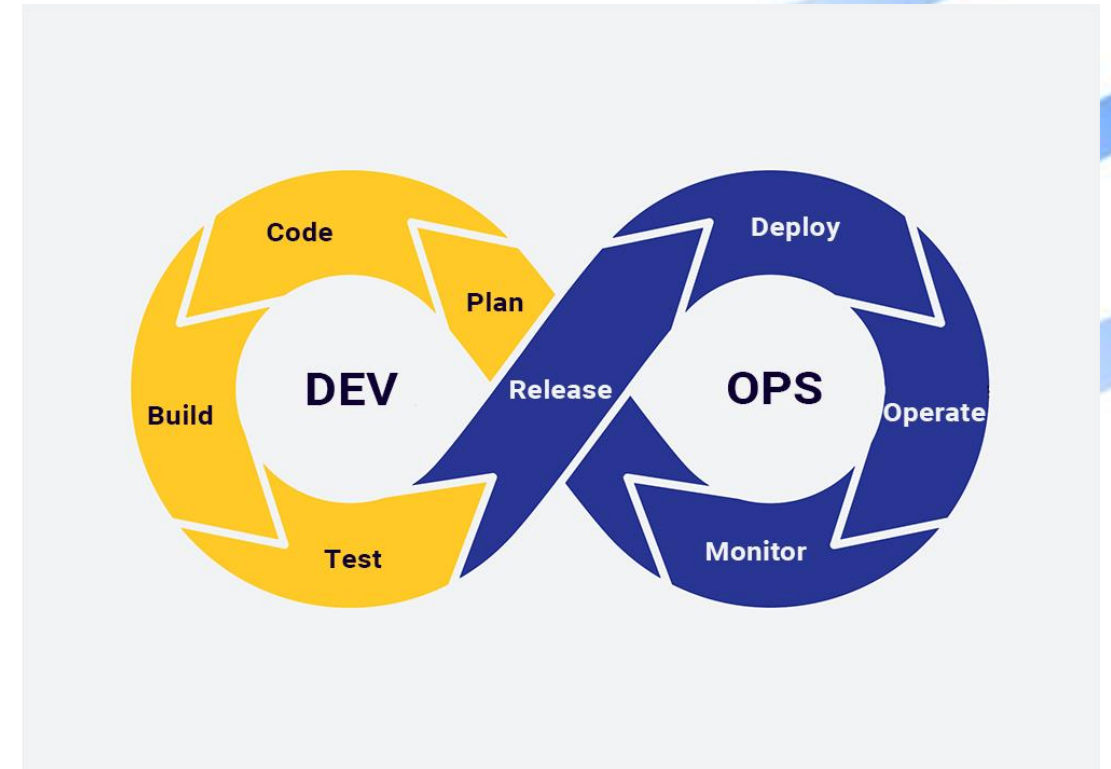
Elevate the Database *AND* DBAs

- DevOps for the database is the vehicle for qualitative database changes
- DBAs have a critical role to play in good quality software.
 - Using database migration tools like Liquibase allows DBAs to offload manual work
- Shift Left
 - Share the workload and earlier in the SDLC
 - Add database automation change to the pipeline
 - Free DBAs time to perform more critical tasks



Emphasis

- Automation is essential
 - DevOps & CI/CD is essential
 - Applying this to databases will -
 - Decrease risk
 - Increase repeatability
 - Increase visibility + transparency
 - Share workload outside of DBAs
 - Allow DBAs to focus on higher level responsibilities
- Quality is a very important end goal
 - Database automation via DevOps & CI/CD is the vehicle to get us to a qualitative destination



Liquibase Demo

Robert Reeves, CTO of Liquibase will showcase database migration automation using Liquibase

End