

# DevOps and Databases

Marek Maško

A decorative graphic at the bottom of the slide. It features a diagonal split between a red upper-left section and a dark gray lower-right section. The gray section contains a circuit-like pattern of small black dots and lines, with several gear and square icons scattered throughout.

**Sabre**

# About the Author



## Marek Maśko

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- Working with SQL Server for ~6 years
- SQL DBA, Dev & Architect
- PLSSUG Speaker

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**Microsoft**  
**CERTIFIED**

Solutions Associate

SQL Server 2008

**Microsoft**  
**CERTIFIED**

Solutions Associate

SQL Server 2012/2014

# About Sabre

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- Sabre is an innovative technology company operating in travel industry.
- Sabre Polska was established in 2000 and operates as a key Global Solutions Center for its parent company Sabre Corporation.
- Sabre businesses:
  - Airline Solutions
  - Travel Network
  - Hospitality Solutions

# Today's topics

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- 
- What is DevOps?
  - „DevOps Team”
  - „DevOps Process”
  - Databases are different
  - My Solution

# What is DevOps?





# Definition



**DevOps** (a clipped compound of development and operations) is a culture, movement or practice that emphasizes the collaboration and communication of both software developers and other information-technology (IT) professionals while automating the process of software delivery and infrastructure changes. It aims at establishing a culture and environment where building, testing, and releasing software can happen rapidly, frequently, and more reliably.

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*<https://en.wikipedia.org/wiki/DevOps>*

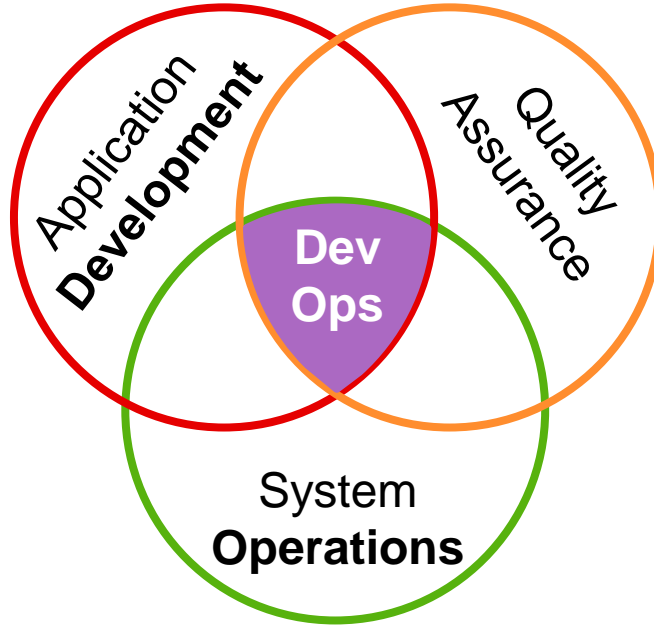
# Definition

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# Definition



# Functional silos

## Development

- Agility
- Productivity
- Flexibility
- Efficiency
- Integration
- Feature-driven Development
- Iterative approach

**SPEED**

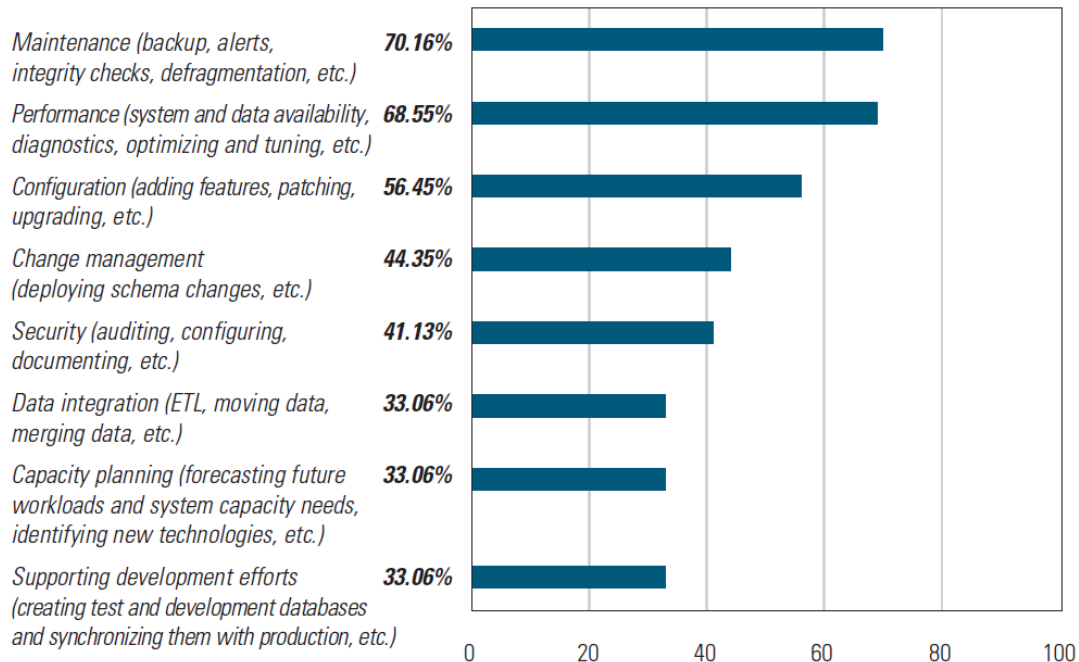
## Operations

- Safety
- Validity
- Stability
- Security
- Repeatability
- Monitoring
- Integrity
- Data Management

**PROTECTION**

# Research results

**Figure 16: What do you consider the most important responsibilities for DBAs?**



## THE REAL WORLD OF THE DATABASE ADMINISTRATOR

By Dr. Elliot King, Research Analyst  
Produced by Unisphere Research,  
a Division of Information Today, Inc.  
March 2015

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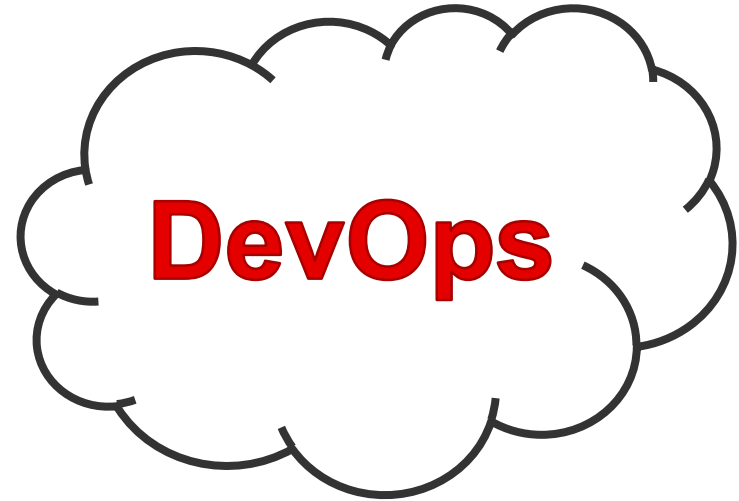
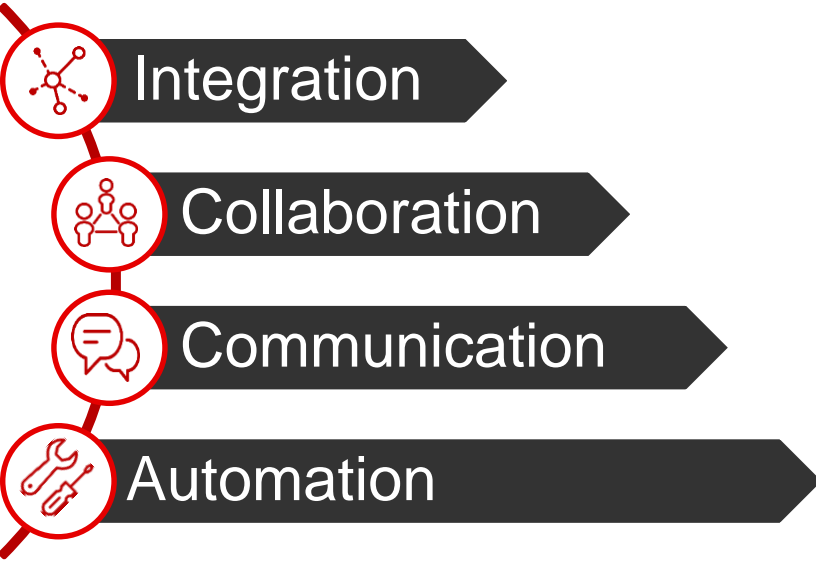


Software

Produced by








# Key values



# Goals

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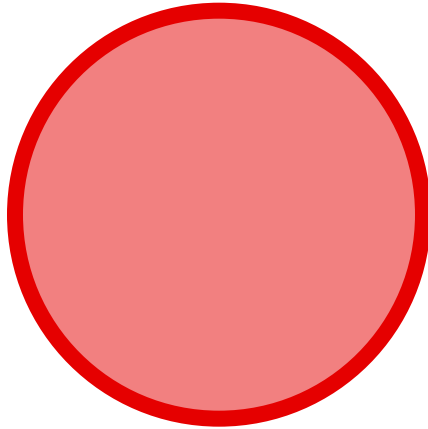
-  Faster release and deployment frequency
-  Better deployment quality
-  Lower failure rate
-  Immediate results
-  Improved process visibility

# DevOps Team

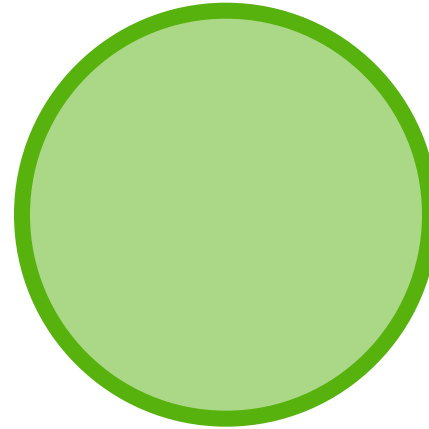


# Dev and Ops Silos

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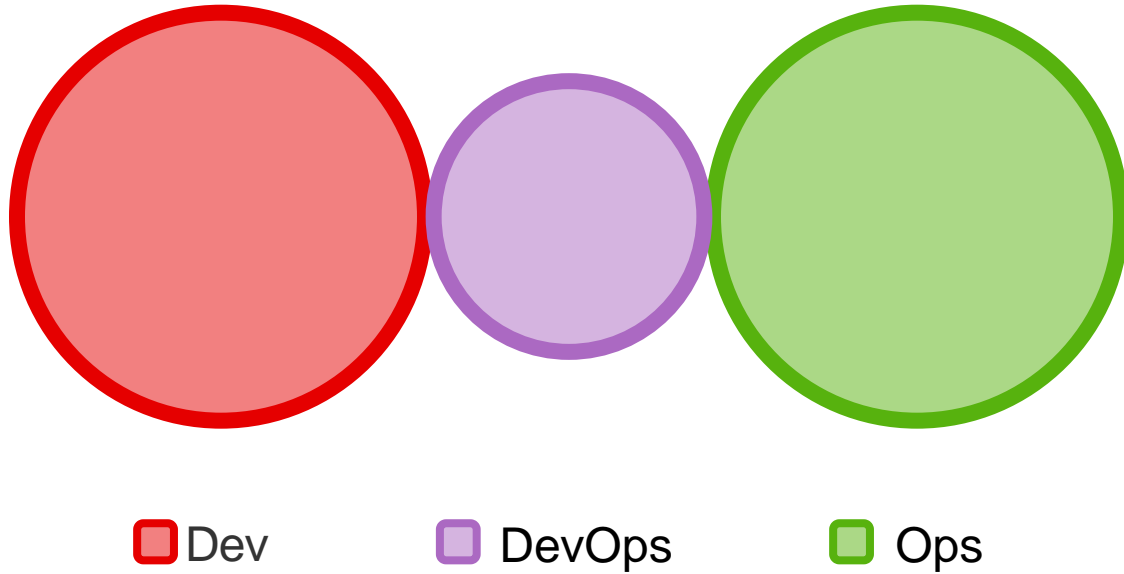
■ Dev



■ Ops

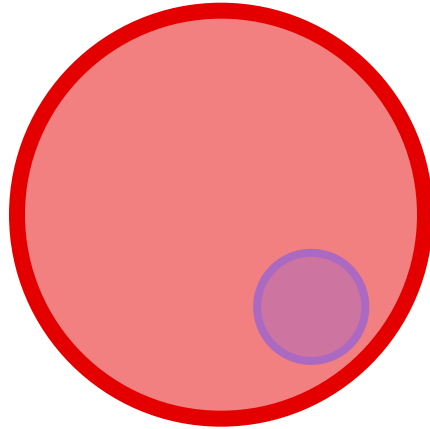
# DevOps Team Silos

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# Dev Don't Need Ops

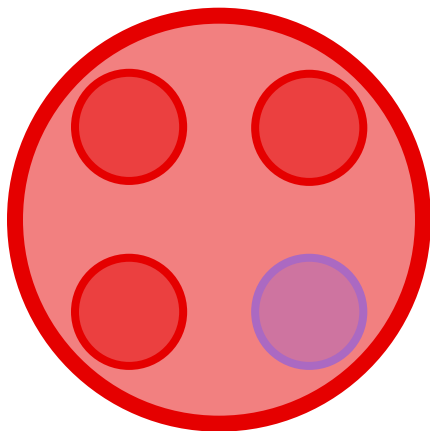


■ Dev

■ DevOps

■ Ops

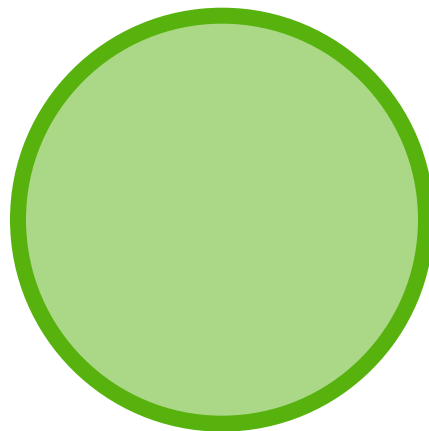
# DevOps as a Tool Team



■ Dev

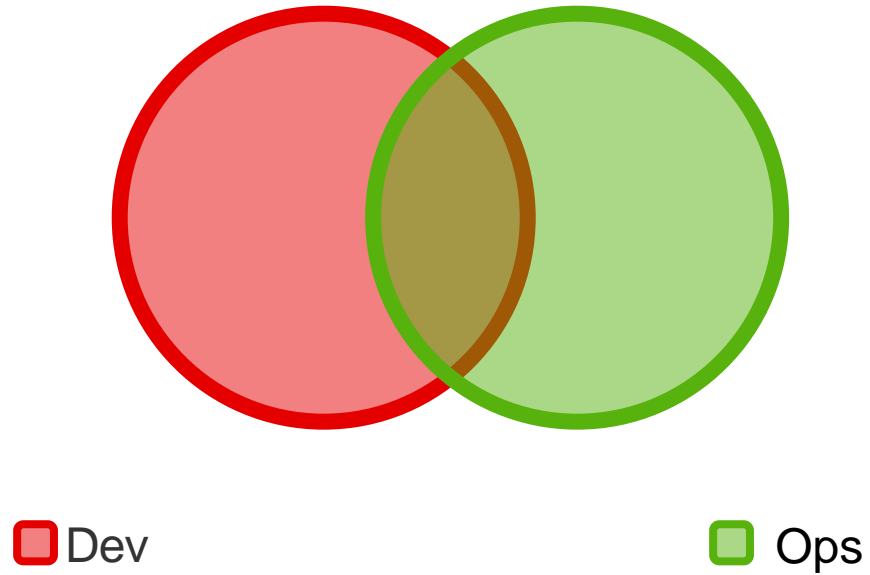
■ DevOps

■ Ops



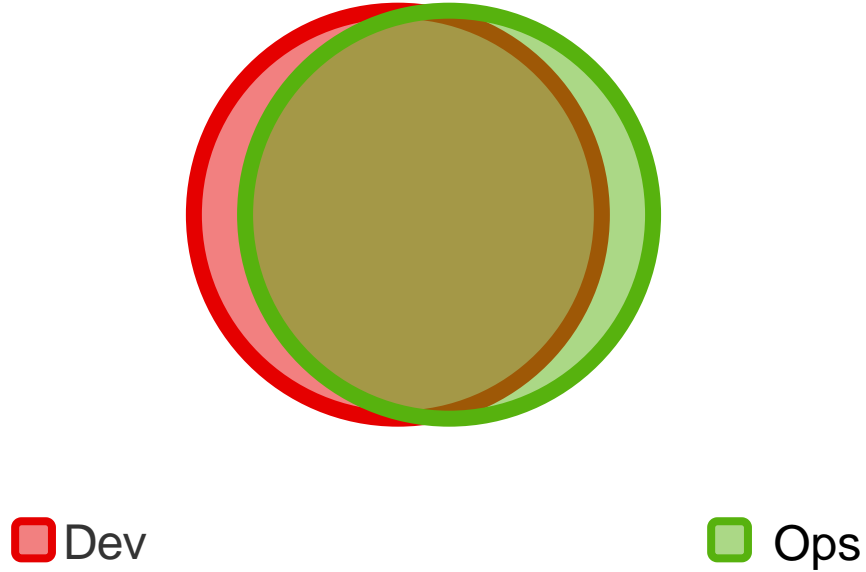
# Dev and Ops Collaboration

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# Fully Shared Ops Responsibilities

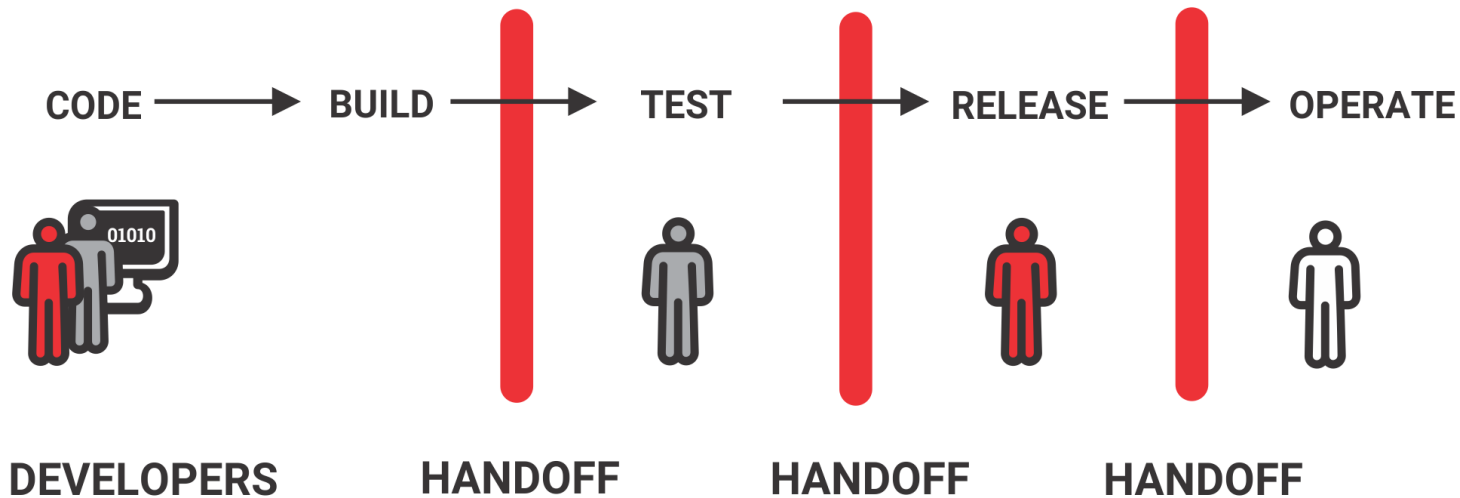
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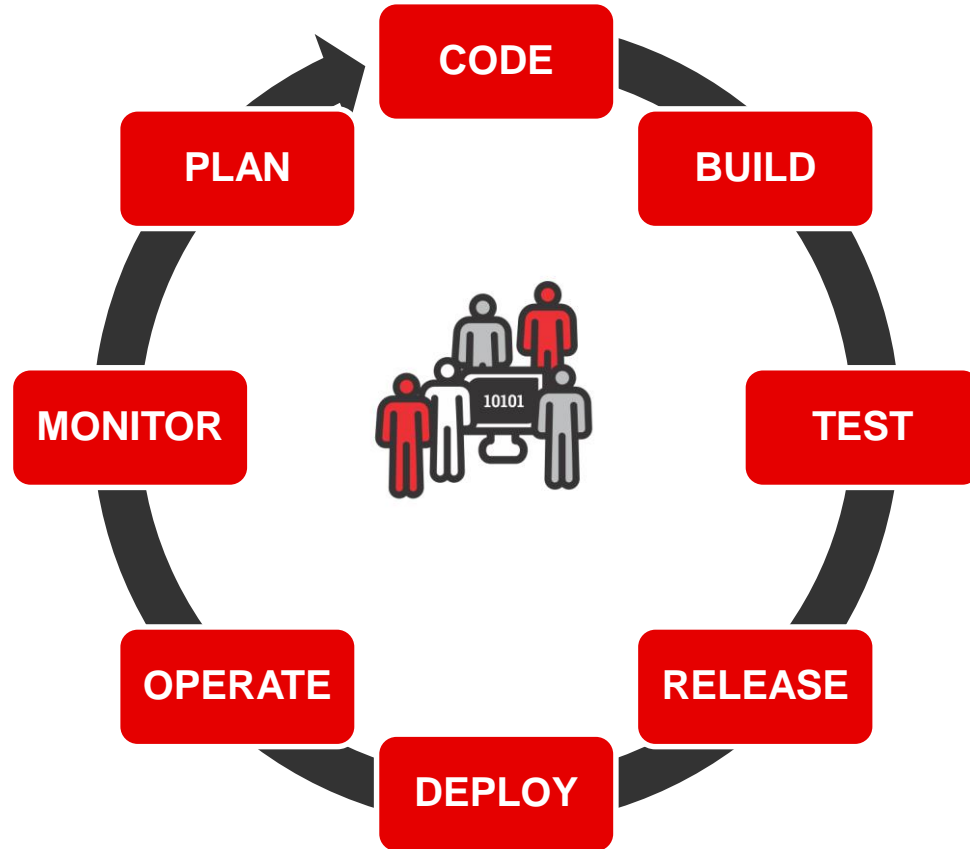


# Process

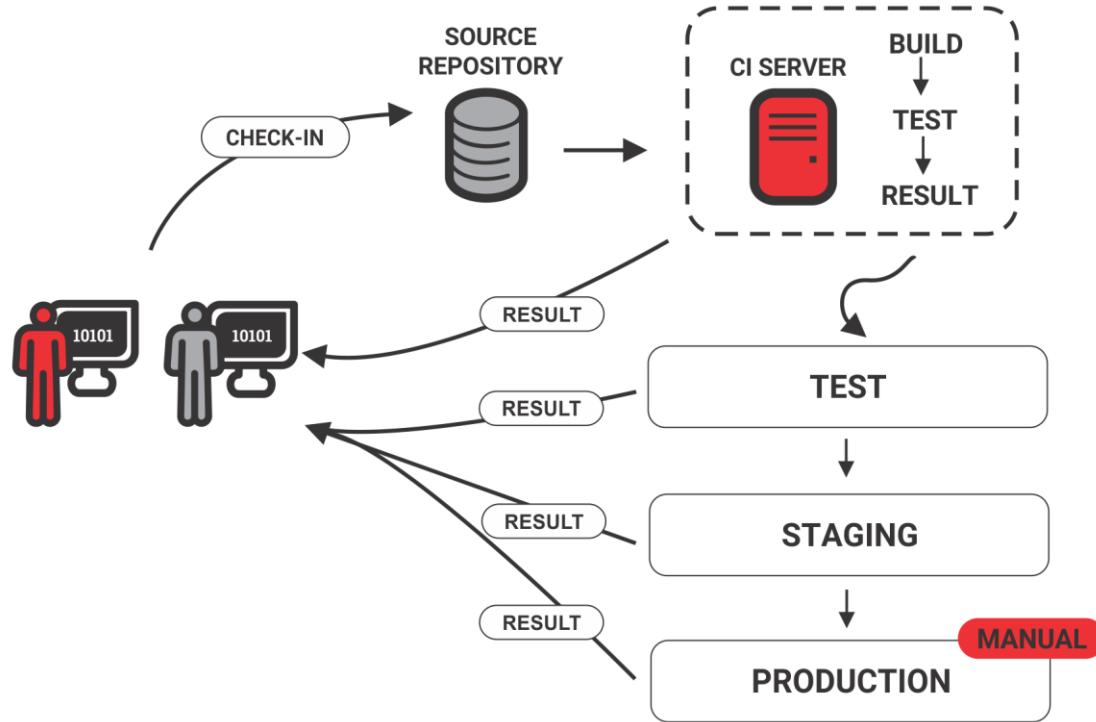


# Old Way



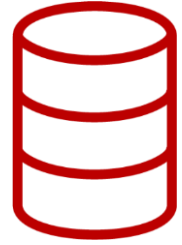


# Continuous Delivery

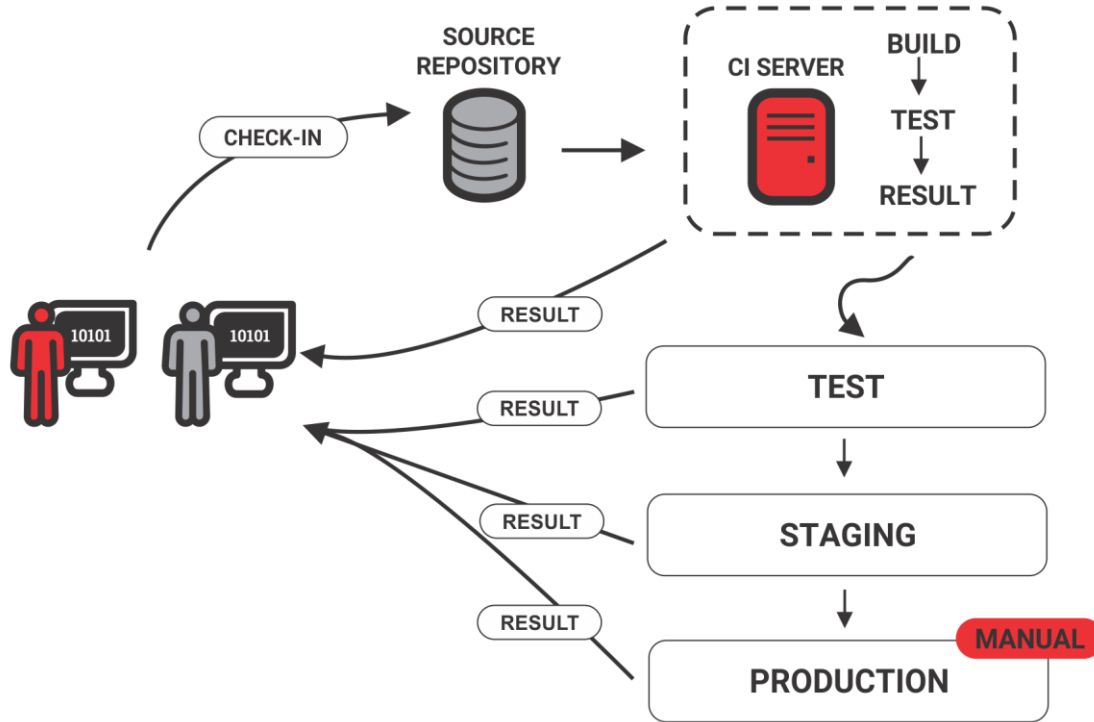




# Databases are different



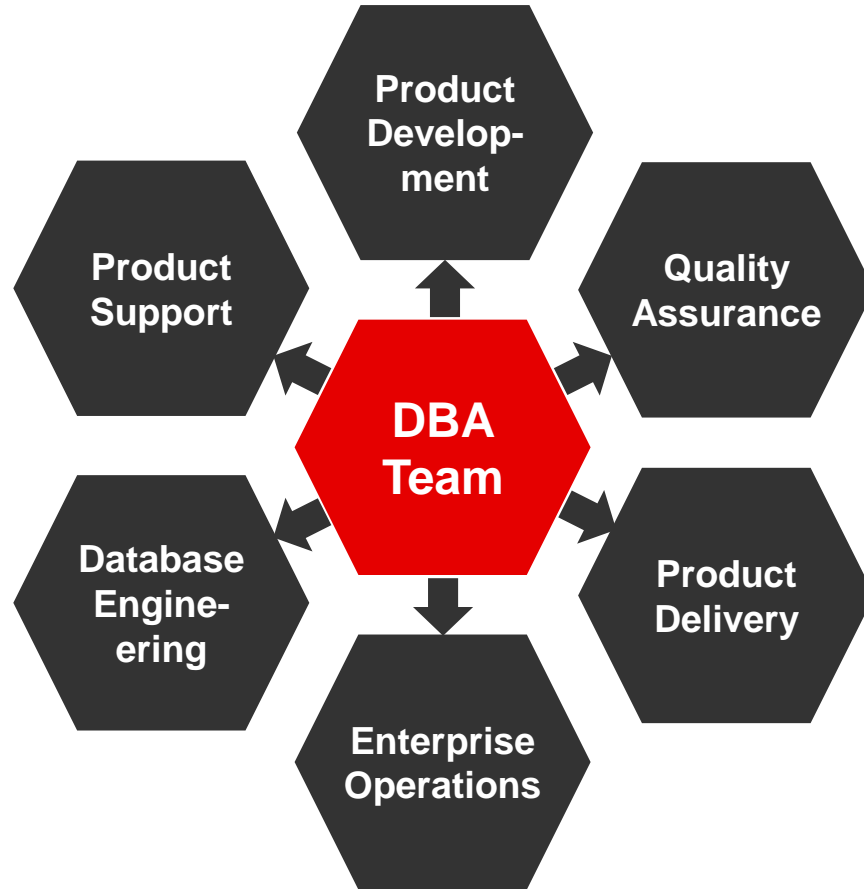
# Continuous Delivery



# Flight Plan Manager



# Many Relationships



# Cross Functional Team



# New Process

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Database  
Build

Closed  
Artefacts

Unit Tests

Automated  
Deployment

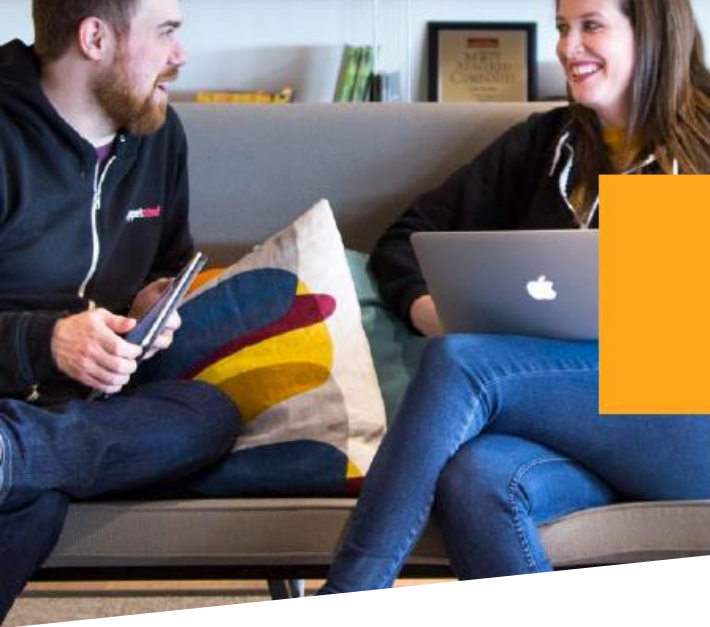
Database  
Drift Check

Pre-  
deployment  
Checks

Database  
Model  
Registration

# Profits





2016

# State of DevOps Report

**„...higher IT and organizational performance is a team effort spanning development and operations....„**

- 200x more frequent deployments
- 24x faster recovery from failures
- 3x lower change failure rate
- 2,555x shorter lead times
- 22% less time on unplanned work and rework



# Thank you!