

# CI CD & YOUR ORGANIZATION

**What will change ?  
How to guide change.**

# ABOUT



**ENTERPRISE & SOLUTION  
ARCHITECT**

**Age of 5 @ SME**

**Age of 7 @ IT**

**From 2006 @ Sogeti NL**

**2018 @ 18 companies**

**26 assignments**



**Innovation  
Privacy/Security  
Patterns**

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# WHO ARE YOU?

**ASL?**

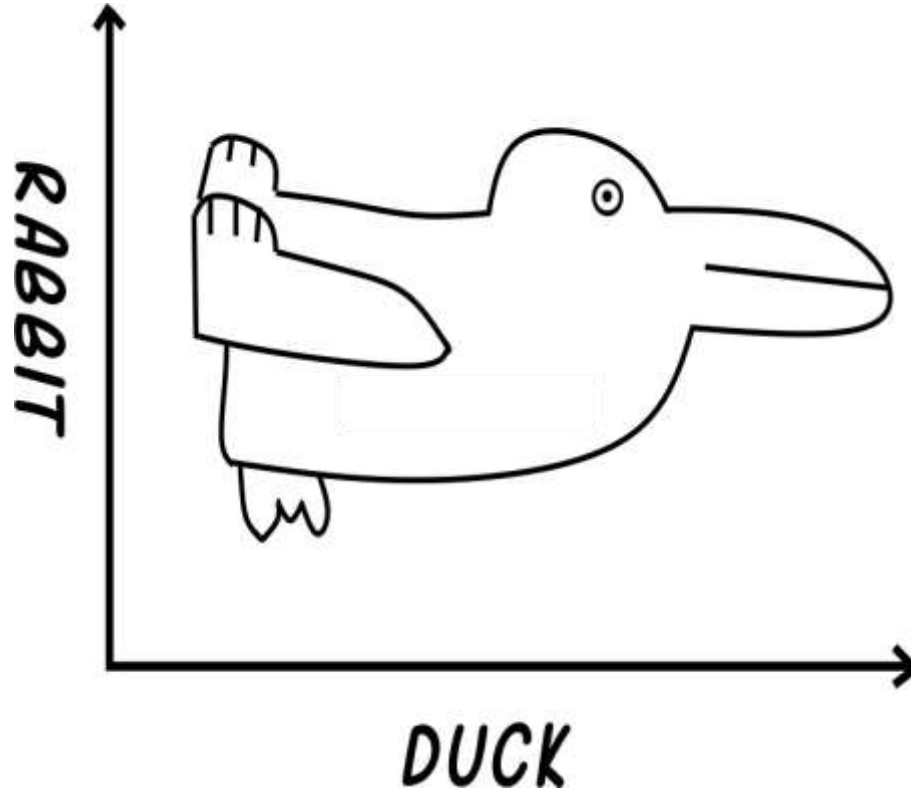
# What would you like to know?

**WIIFM (3)**

# CHANGE MANAGEMENT In a nutshell

# IT'S ALL ABOUT PERSPECTIVE

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# IT'S ALL ABOUT PERSPECTIVE

**A CHANGE OF PERSPECTIVE  
IS THE FUNDAMENT  
OF CHANGE MANAGEMENT.**

# 6 Essential Change Management Models

## Organization-Wide Change

**McKinsey 7-S Model**

**Lewin's Change Management Model**

## Bottom-Up Approach

**ADKAR Model**

**Deming Cycle (PDCA)**

## Employee-Focused Change

**Kotter's 8 Step Change Model**

**Bridges Transition Model**



# ADKAR Model

<b>Awareness</b>	Aware of the need of change
<b>Desire</b>	Desire to participate and support the change
<b>Knowledge</b>	Knowledge on how to change
<b>Ability</b>	Ability to implement required skills and behaviours
<b>Reinforcement</b>	Reinforcement to sustain the change.

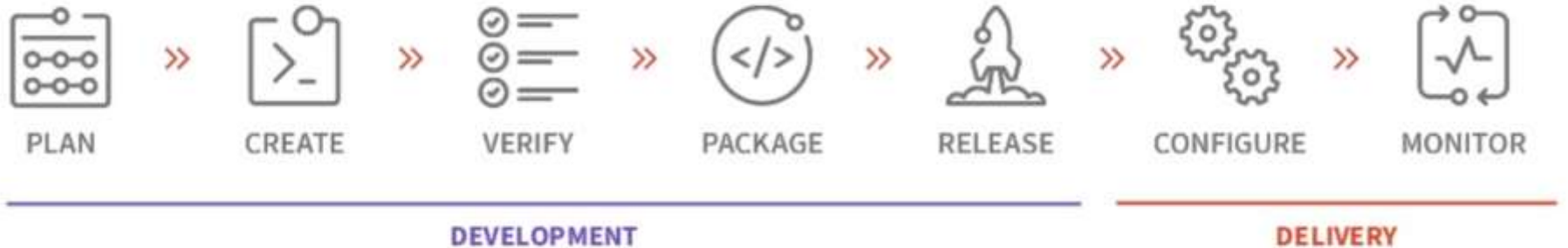
# MY APPROACH ON THE HUMAN FACTOR

**DON'T TRY TO CHANGE THE ORGANIZATION AS A WHOLE  
ONLY TRY TO CHANGE THE BEHAVIOUR IN YOUR CONTEXT**

**EVERY ORGANIZATION IS UNIQUE AND  
ALL ORGANIZATION HAVE THE SAME PATTERNS**

# CI / CD In a nutshell

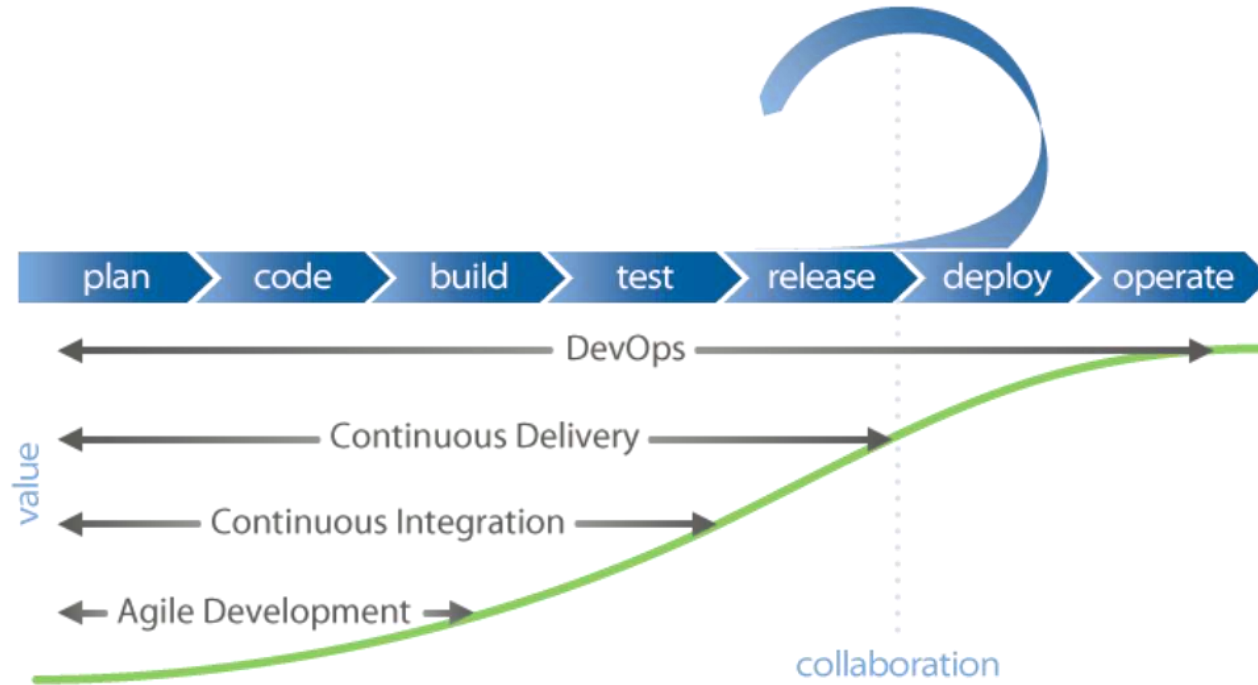
# SOFTWARE DEVELOPMENT LIVELCYCLE



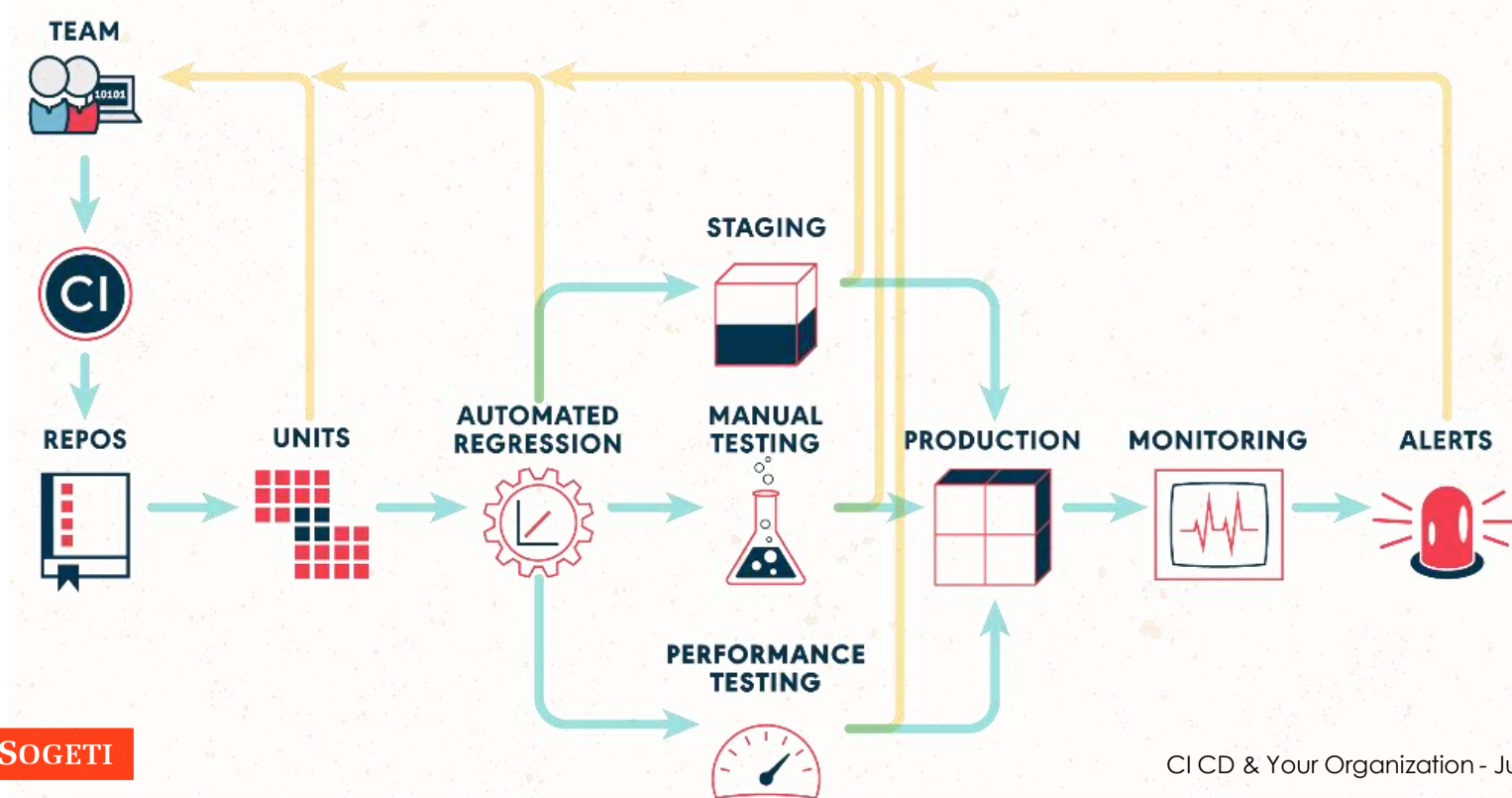
# CONTINUES DELIVERY & TIME



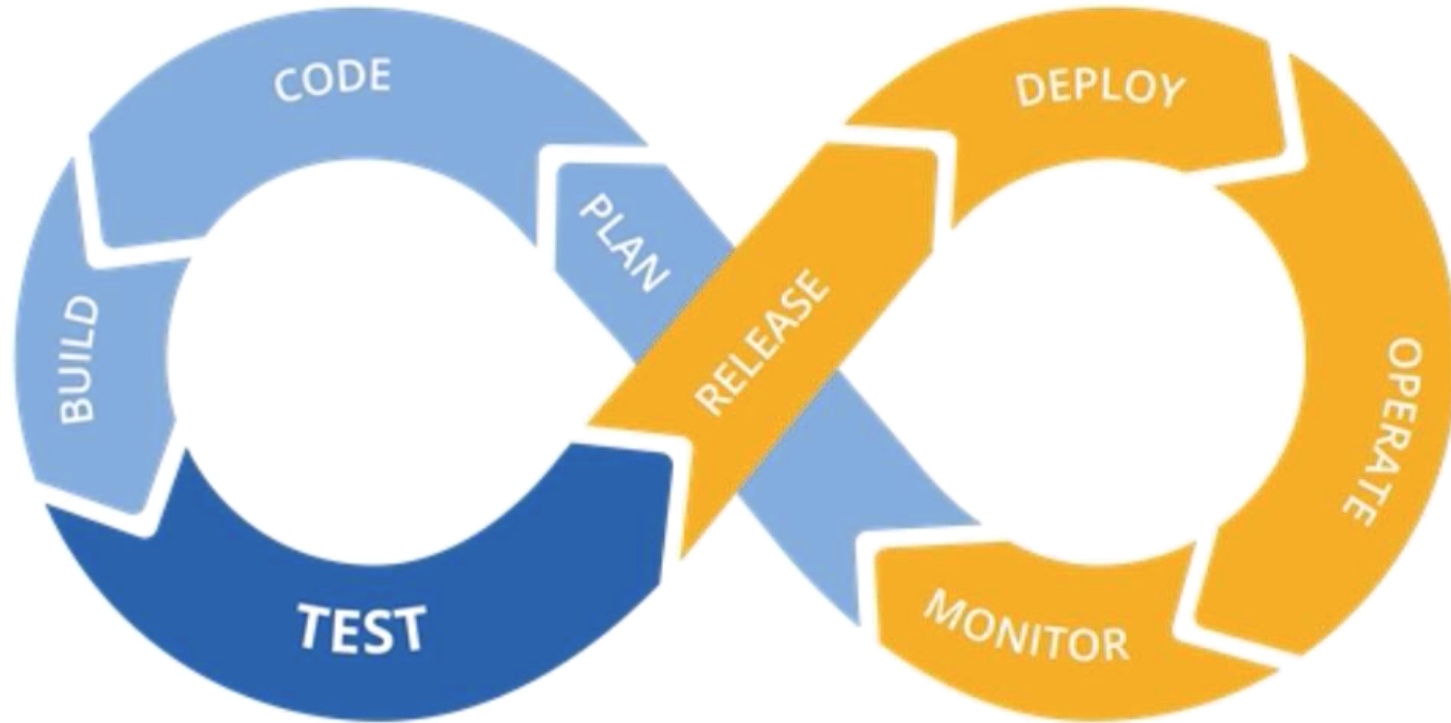
# CONTINUOUS DELIVERY & MATURITY



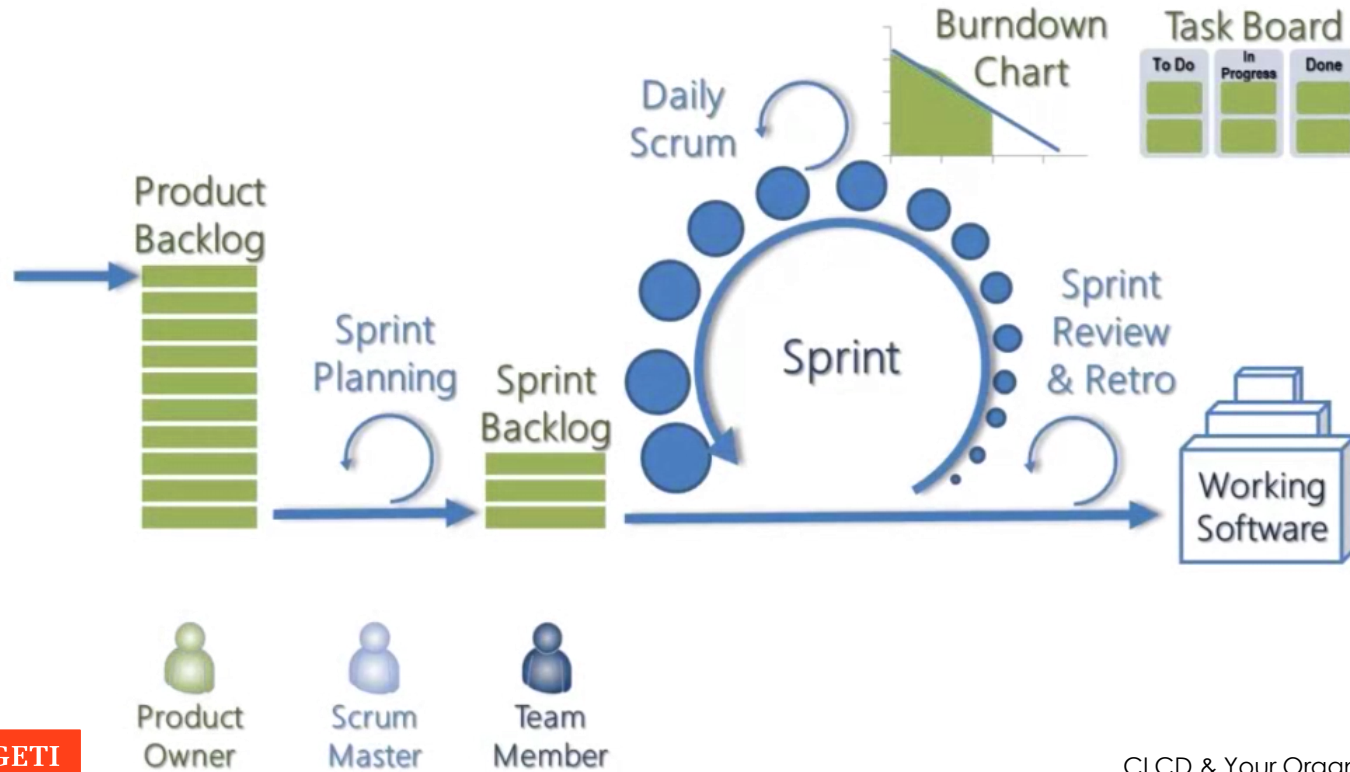
# CONTINUOUS DELIVERY & THE PROCESS



# CONTINUOUS DELIVERY & THE PROCESS



# AGILE SCRUM & THE PROCESS



# CONTINUES DELIVERY & TIME



# CONTINUES DELIVERY & TIME



CONTINUOUS  
DELIVERY  
HOURS

# CONTINUES DELIVERY & IMPACT ON IT



CONTINUOUS  
DELIVERY  
HOURS

AUTOMATION

(MICRO)  
SERVICES

STATELESS

# CONTINUES DELIVERY & IMPACT ON IT



CONTINUOUS  
DELIVERY  
HOURS

**PETS VS. CATTLE  
ORCHAISTRATION**

**AUTOMATION**

**(MICRO)  
SERVICES**

**STATELESS**

# ENTERPRISE DEFINITION

# WHAT DEFINES AN ORGANIZATION

## 1. Social Entities

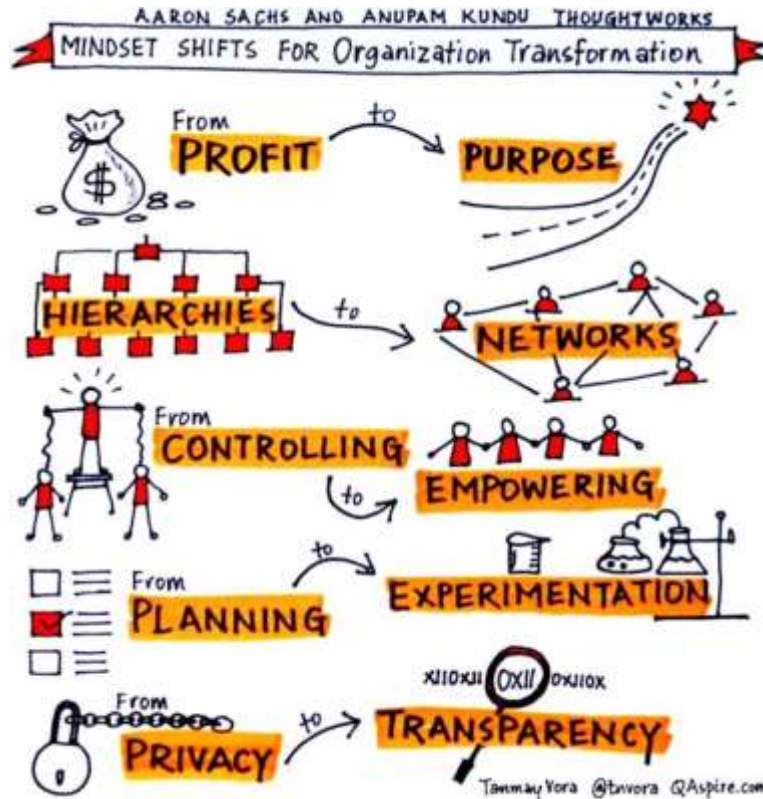
### 1. Purposeful and goal directed

### 1. Intentionally designed as systems of activity

### 1. Linked to the external environment

- *Jan Hoogervorst - Foundation of Enterprise Governance and Enterprise Engineering (2018 1.1.4)*
- *R.L. Daft - Organizational Theory and Design (2001)*

# WHAT DEFINES AN ORGANIZATION



# WHAT DEFINES AN ORGANIZATION

***“The pupose and function expresses that enterprises aim to fulfill or address certain (perceived) wants and needs of (certain) societal member of society at large by delevering products and/or services”***

- ***Jan Hoogervorst - Foundation of Enterprise Governance and Enterprise Engineering (1.1.4)***

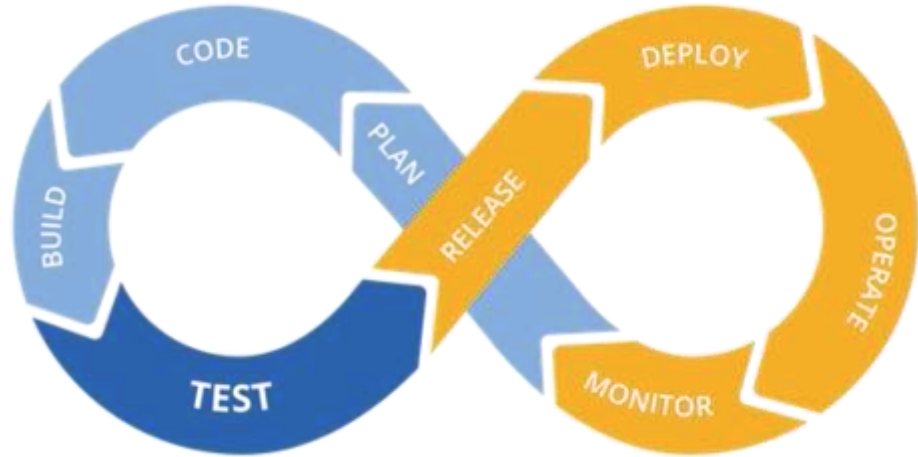
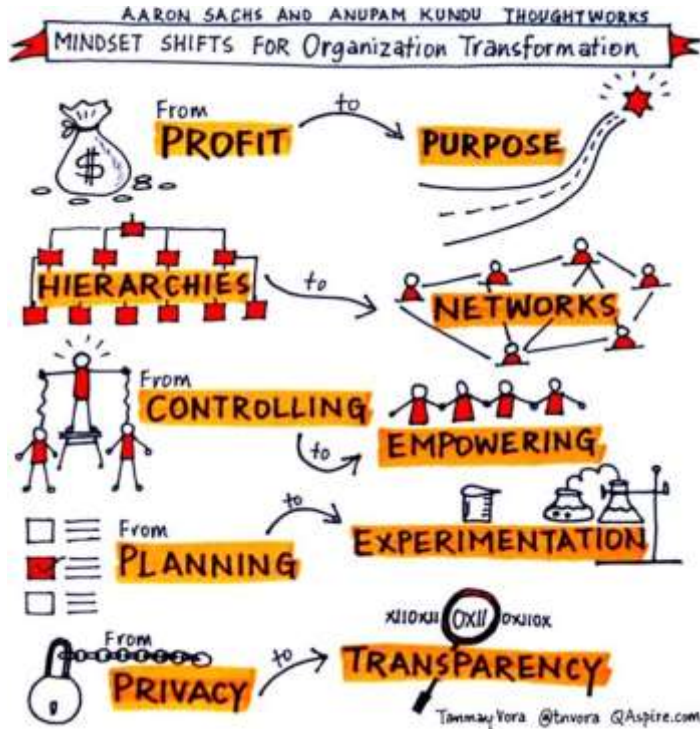
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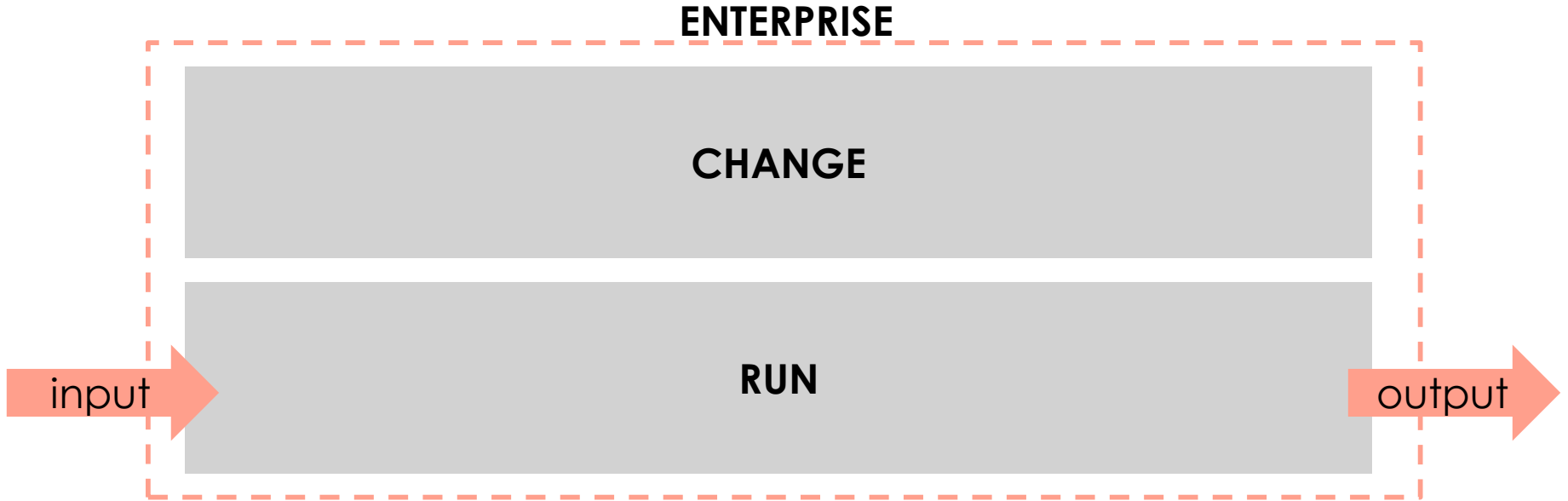
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# ENTERPRISE PATTERN

# DOES THIS CHANGE THE ENTERPRISE PATTERN?

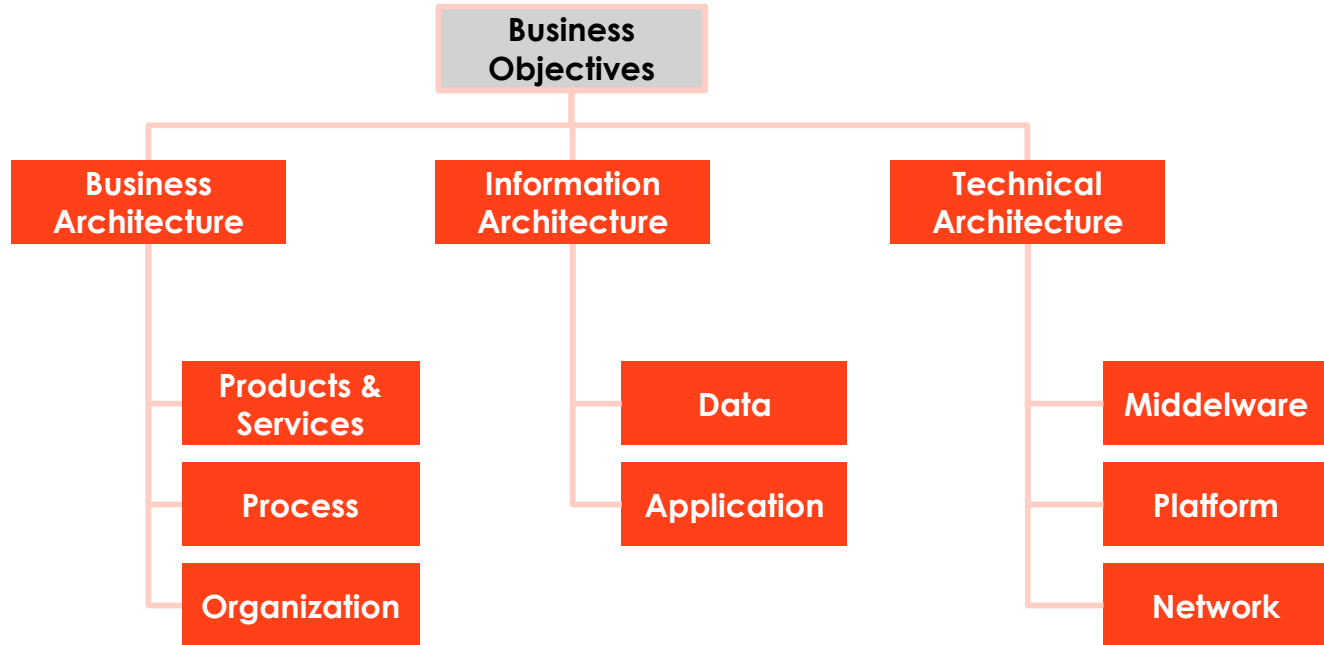


# ENTERPRISE PATTERN

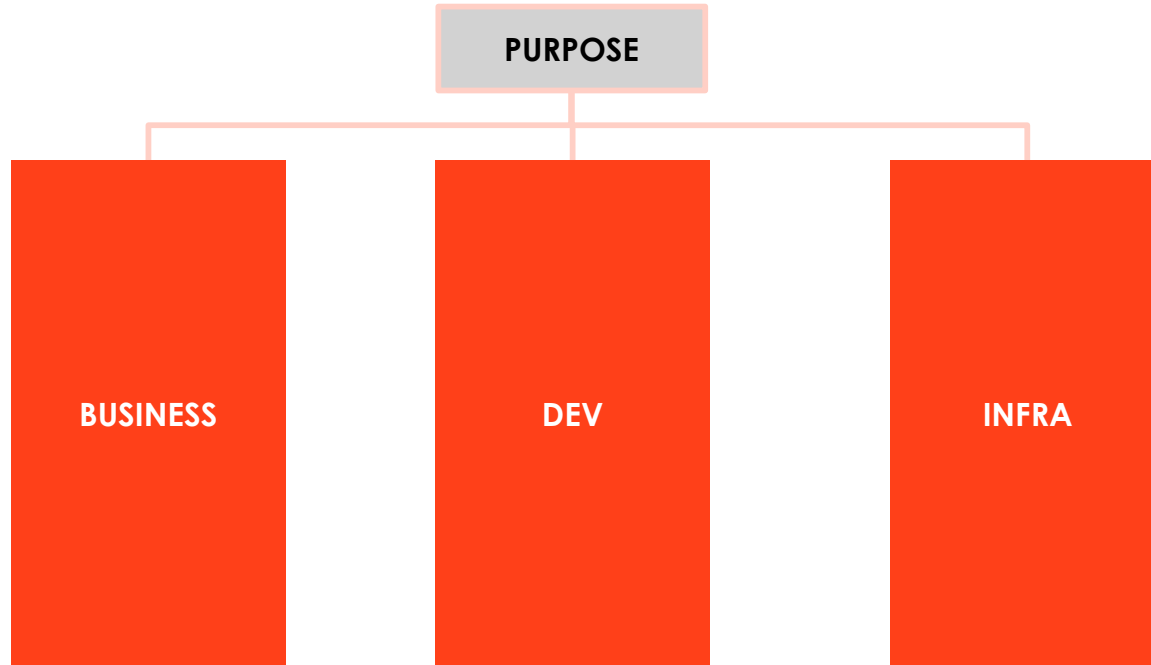


**IS AN  
ENTERPRISE A  
FRACTAL?**

# ENTERPRISE PATTERN

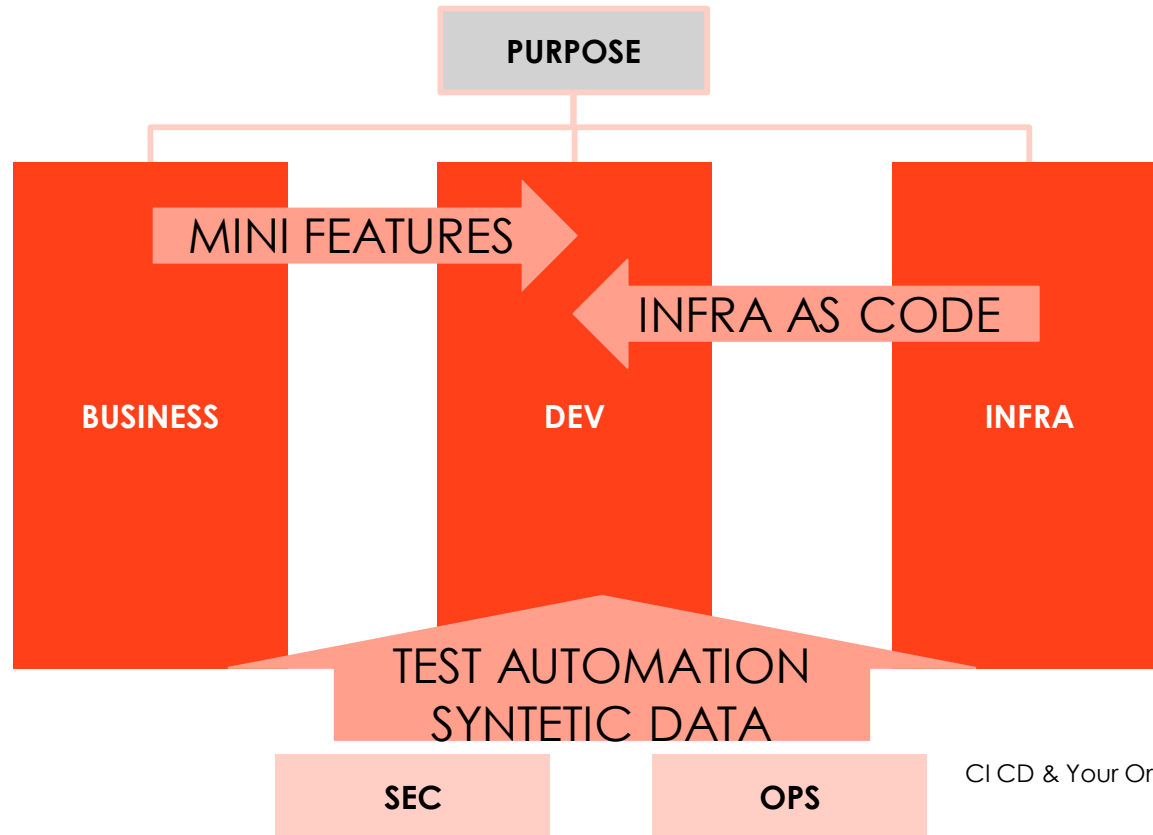


# SOFTWARE DEVELOPMENT PATTERN

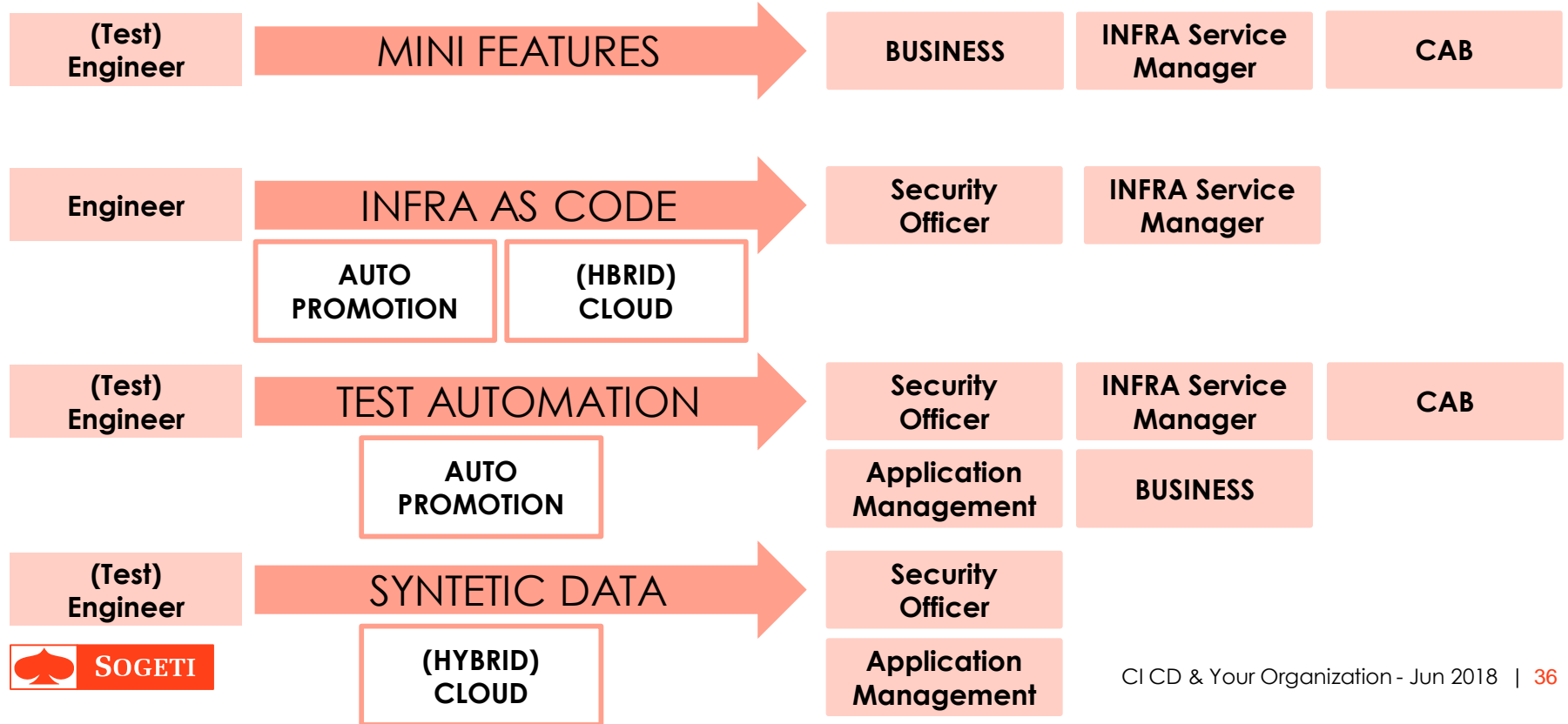


# CHANGE

# CI INVLUENCE ON SOFTWARE DEVELOPMENT



# IT CREATION PATTERN



# IT CREATION PATTERN

(Test)  
Engineer

MINI FEATURES

SMALL ITERATIONS, AB TESTING, LESS REGRESSION  
QUICK ROLLBACK, LESS RISK

Engineer

INFRA AS CODE

AUDITED AND TESTED, PREDICTABLE THUS LESS RISK,  
SCALE

(Test)  
Engineer

TEST AUTOMATION

SEC CONTROLS PROVEN, OPS REQ PROVEN,  
AUTOMATION IS QUICK REPLAY,  
FROM ADMINISTRATION TO REPORTING

(Test)  
Engineer

SYNTETIC DATA

SECURE AND COMPLIANT, OPEN THE DOOR FOR  
DIFFERENT DEPLOYMENT

# SUMMARY



SOGETI

# SUMMARY - CHANGE IN THE ORGANIZATION

**AUTOMATE ALL THE THINGS**

**AUTOMATION replaces DATA ENTRY with REPORTING  
by DEFINE AND CODE**

**EMPOWER ALL THE “QUALITY GATES” ROLES BY  
NEVER SAYING `NO`, ALWAYS SAY `YES WITH AUTOMATION`**

**ACT SMART & LOCAL and *‘DO OR DO NOT, THERE IS NO TRY.’***

# MY APPROACH ON THE HUMAN FACTOR

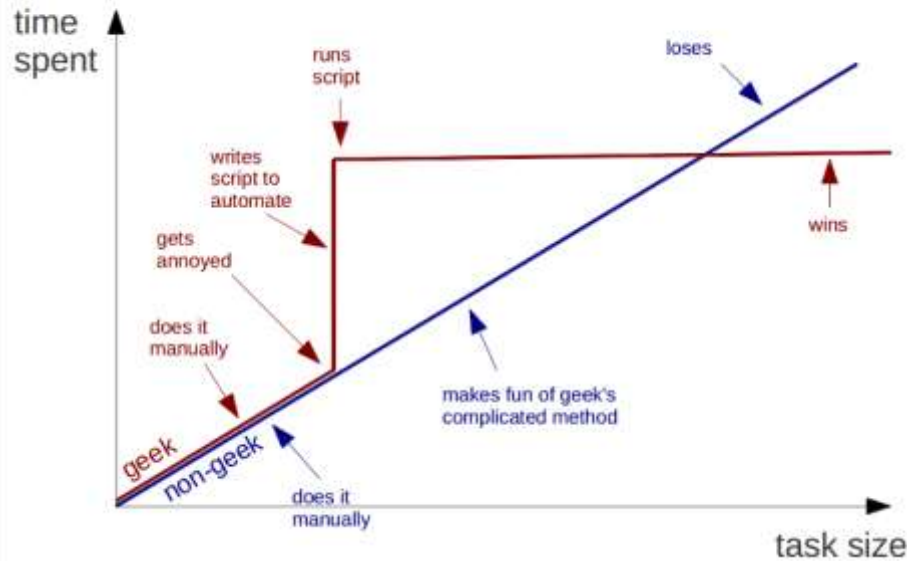
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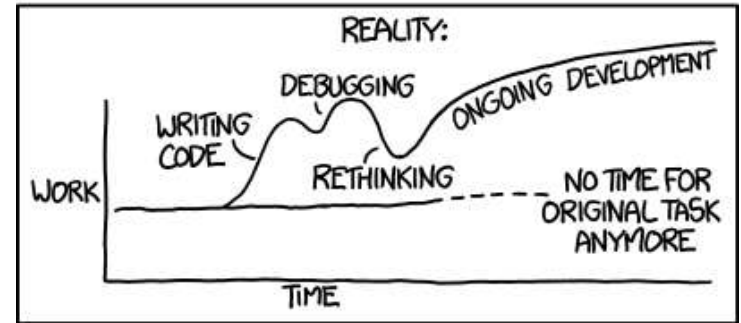
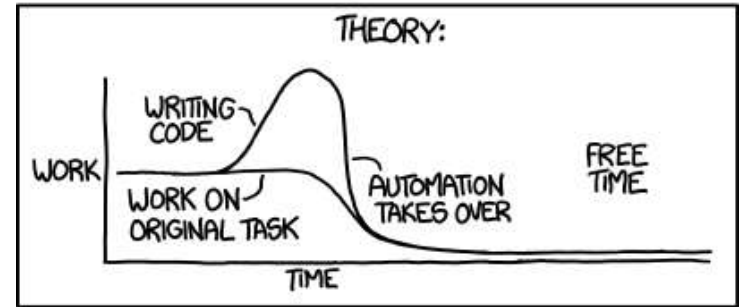
# HIDDEN SLIDES

# AUTOMATION

## Geeks and repetitive tasks



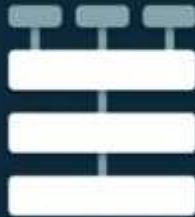
"I SPEND A LOT OF TIME ON THIS TASK.  
I SHOULD WRITE A PROGRAM AUTOMATING IT!"



# GRAPHQL

## 3 different architectures

Stateless  
Monolith



Microservice  
Architecture



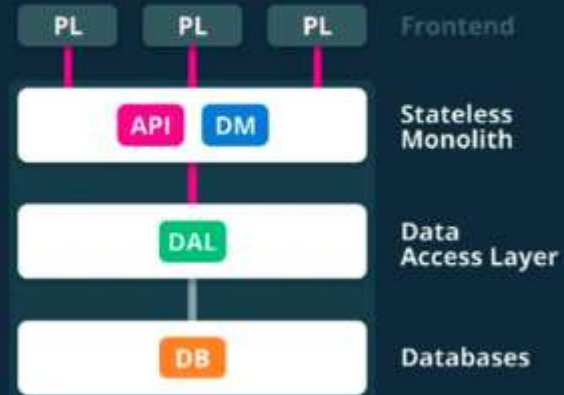
Layered Service  
Architecture



# GRAPHQL

## Stateless Monolith

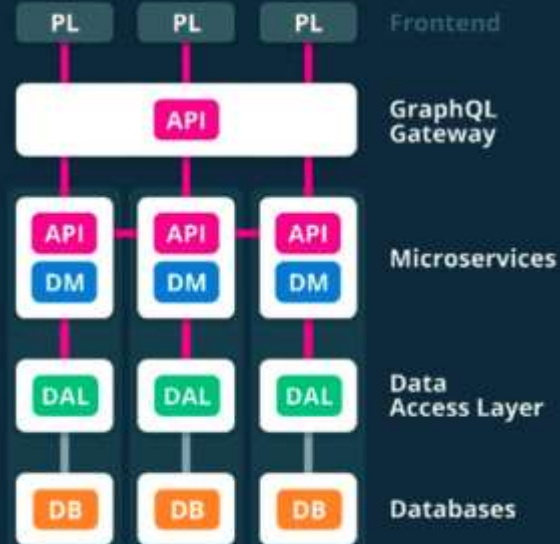
- Similar to monolith but all state is moved into data services
- Stateful: in-mem state across reqs
- ✓ Pros: Can be run serverless
- ✗ Cons: Still code complexity issues



# GRAPHQL

## Microservice Architecture

- Thin GraphQL gateway layer
- Often auto-generated based on schema merging
- Microservices contain business logic + each MS has its own database
- ✓ Pros: Rigid boundaries & scalable
- ✗ Cons: Infrastructure overhead



# GRAPHQL

## Layered Service Architecture

- Based on Microservice Architecture
- GraphQL gateway layer is optional
- Presentation services give frontend engineers more flexibility/control
- Pros/Cons: Same as MS architecture

