

**Software Architecture**  
**Course's Code: CSE 483**  
**Introduction to Enterprise Architecture**  
**(Chapter 4)**

# Chapter 4

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## **Chapter 4. Introduction to Enterprise Architecture**

4.1 What is software architecture?

4.2 Why do we need architecture?

# What is Software Architecture?

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## Structure

- Components
- Business
- Cross-cutting

## Design

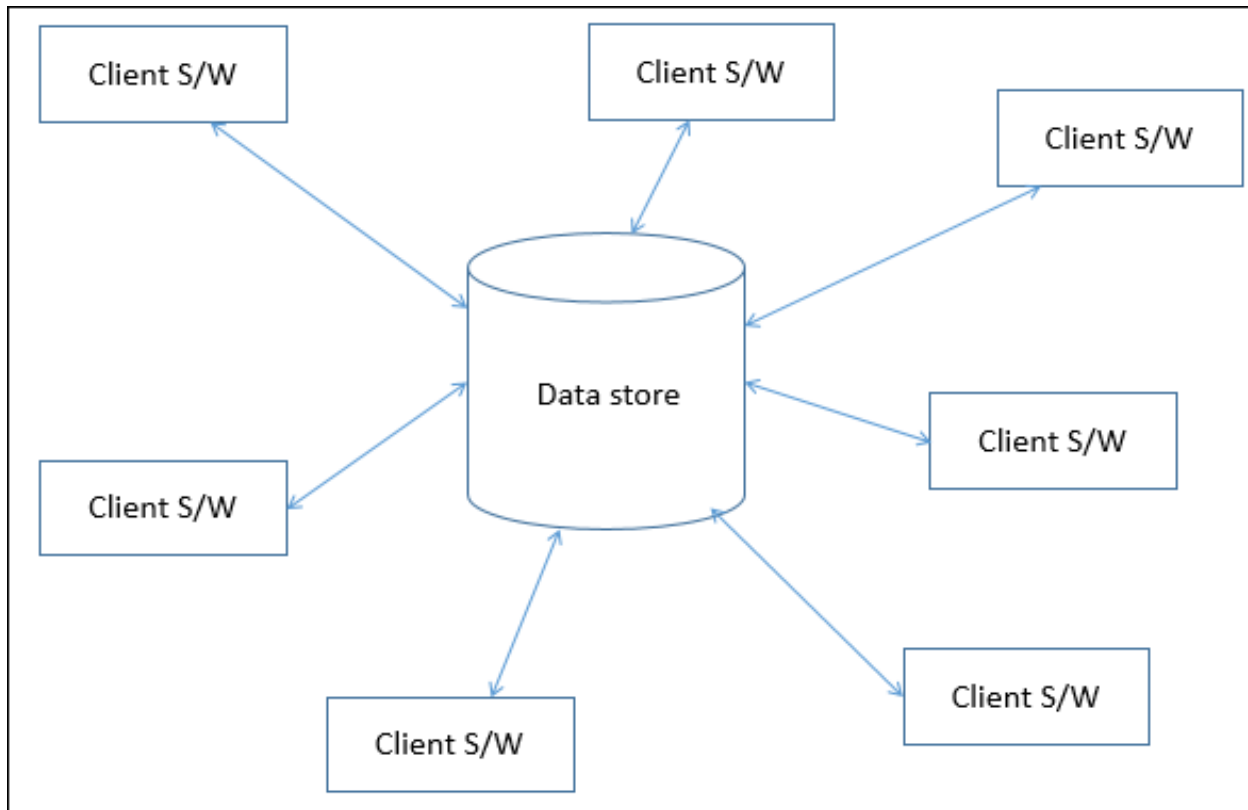
- Data Structure
- Tech stack
- APIs and  
frameworks

## Process

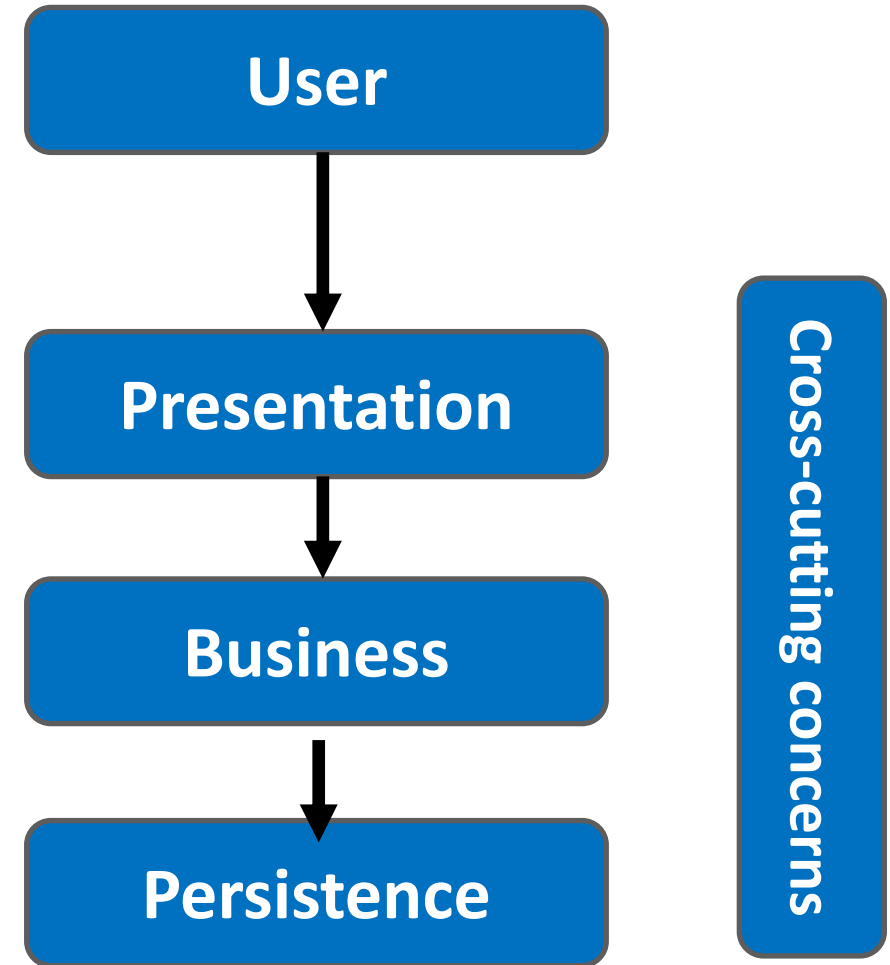
- Approach
- Scrum/Agile
- Waterfall

# What is Software Architecture?

## Database-centric

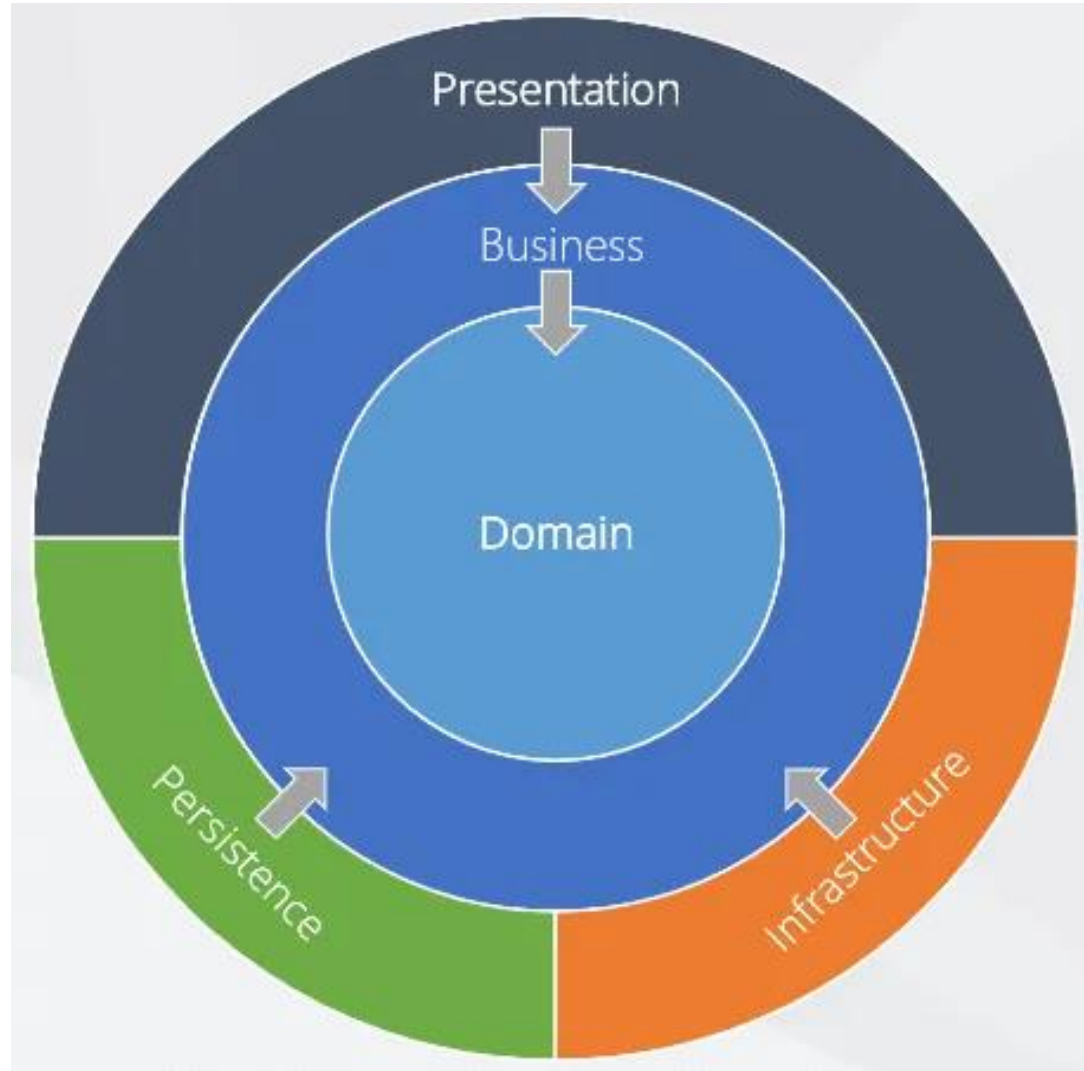


## Classic three-tier



# What is Software Architecture?

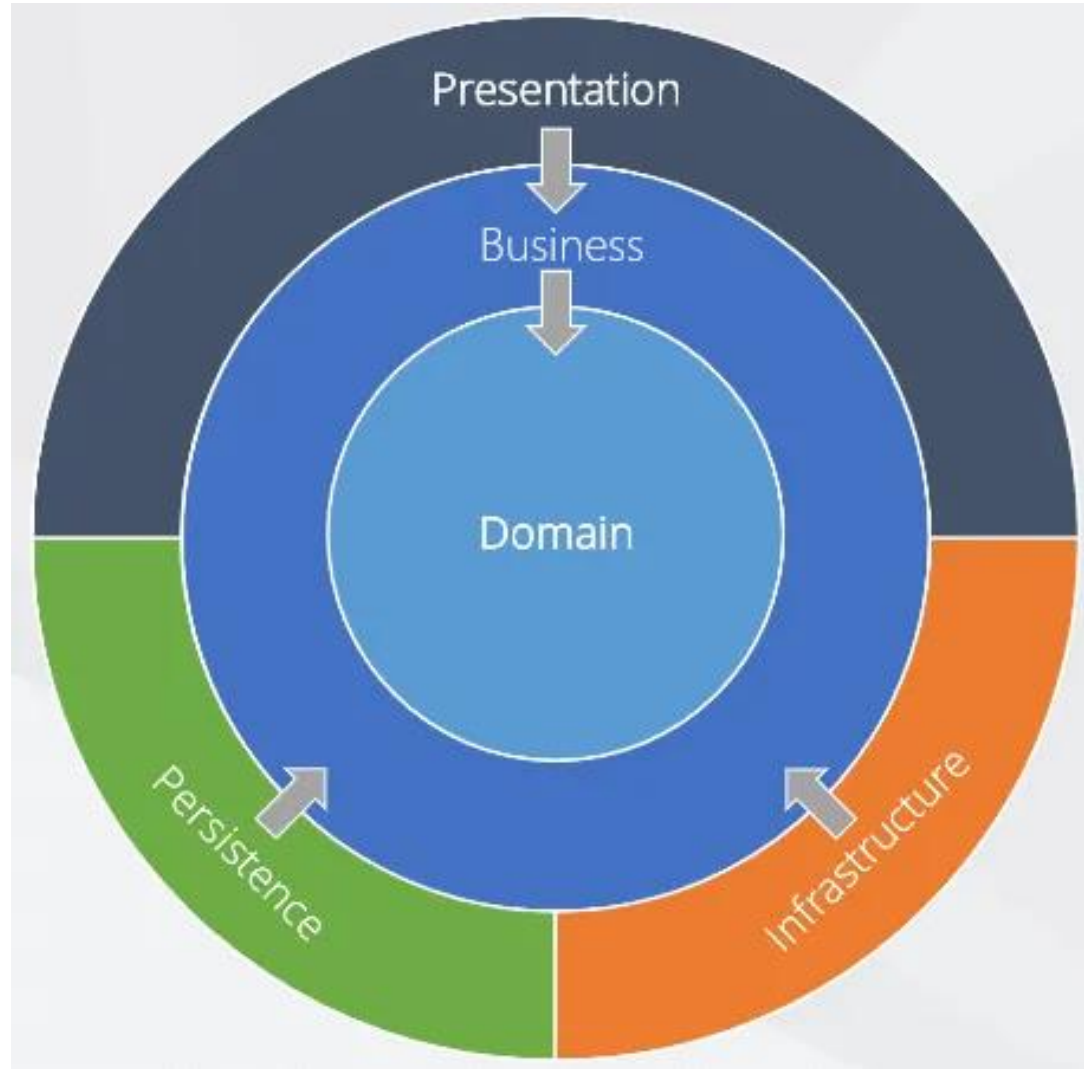
## Domain-centric



# What is Software Architecture?

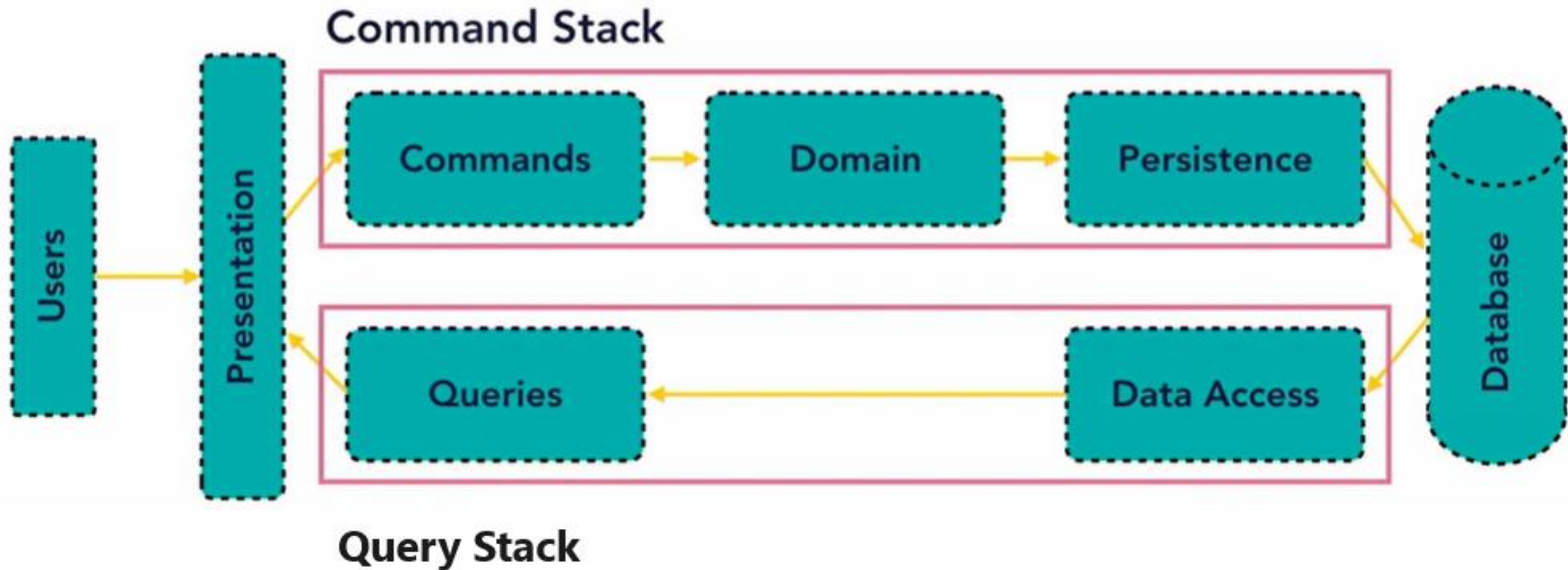
## Screaming

- Customers
- Employees
- Inventory
- Sales
- Suppliers



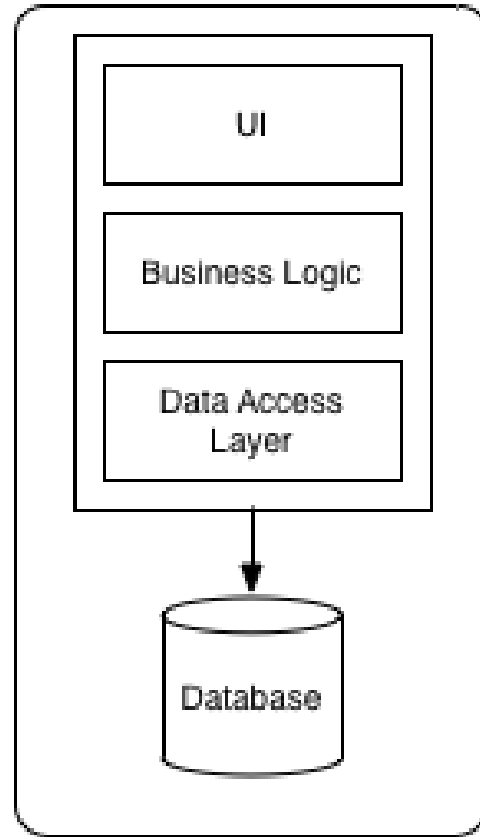
# What is Software Architecture?

## CQRS (Command Query Responsibility Segregation)



# What is Software Architecture?

## Monolith

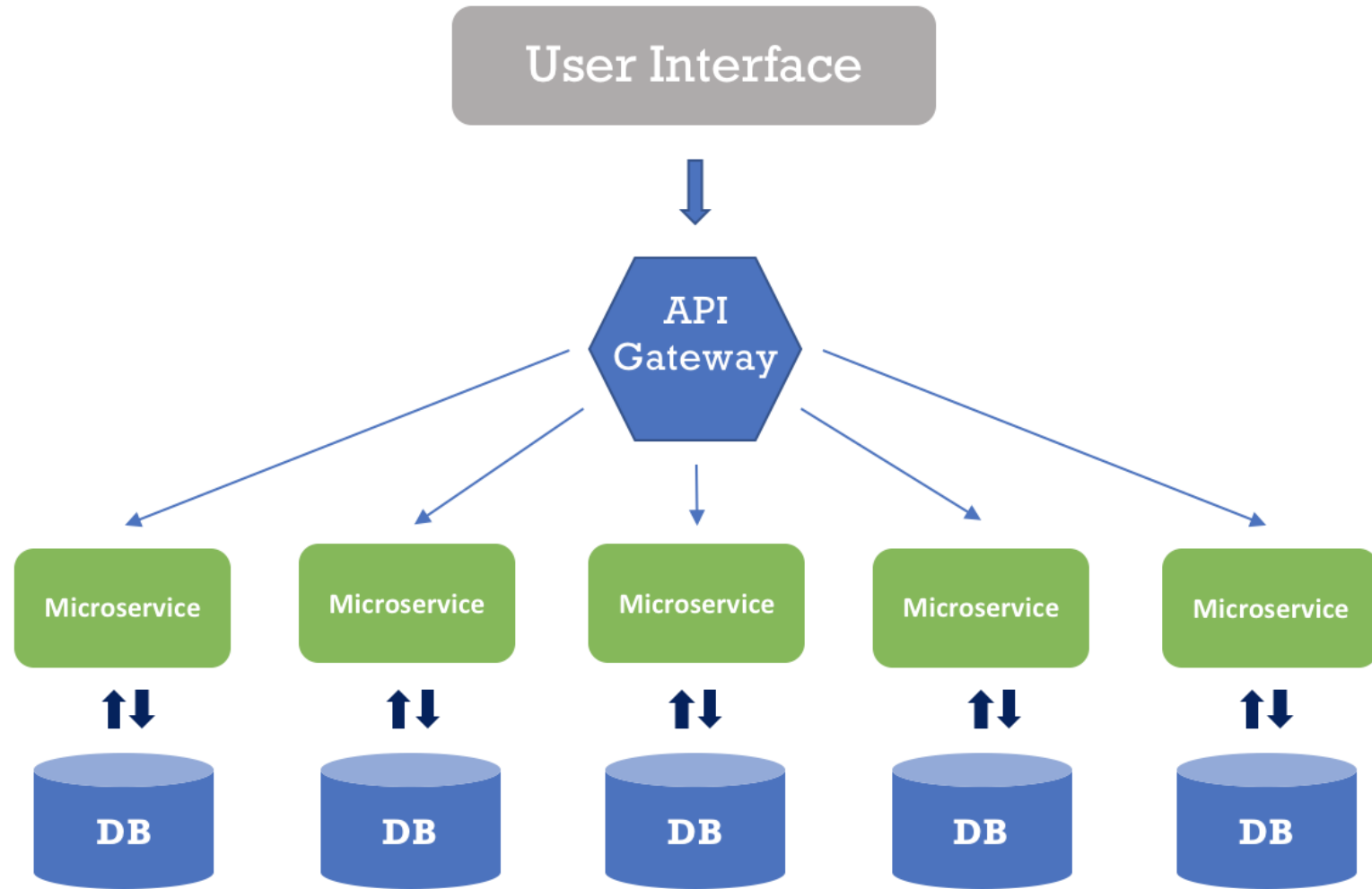


Monolithic Architecture



# What is Software Architecture?

## Microservices



# Chapter 4

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## **Chapter 4. Introduction to Enterprise Architecture**

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# Why do we need architecture?

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- If you just dive in and start coding, you could run into problems and additional expenses
- Describes a complex product
- Solution to problems already solved
- Free to fix other problems
- Facilitates communication and increases productivity

# Why do we need architecture?

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- Blueprints
- Defines boundaries and interactions
- Easier to fix bugs and extends codebase