

PROLOGUE



**Building Serverless Solutions
with Azure and .NET**

Introduction to Microservices

Understanding the Basics

What are microservices?

**Modular
Structure**

What are microservices?

**Modular
Structure**

**Independent
Functions**

What are microservices?

**Modular
Structure**

**Independent
Functions**

Communication

What are microservices?

**Modular
Structure**

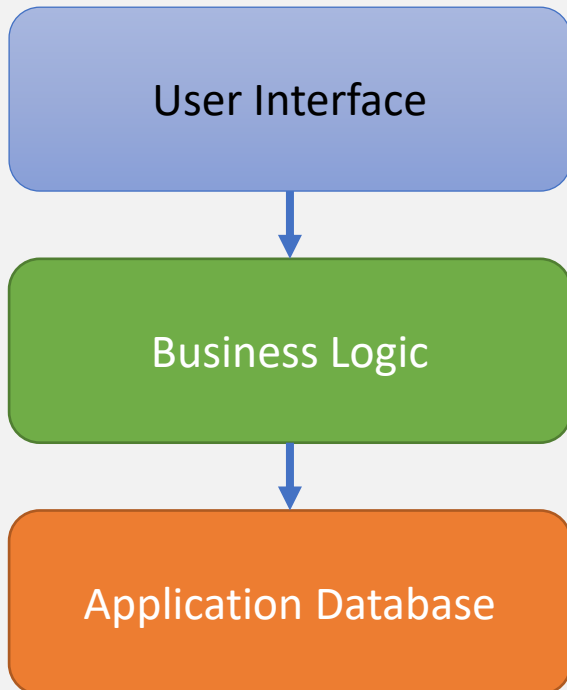
**Independent
Functions**

Communication

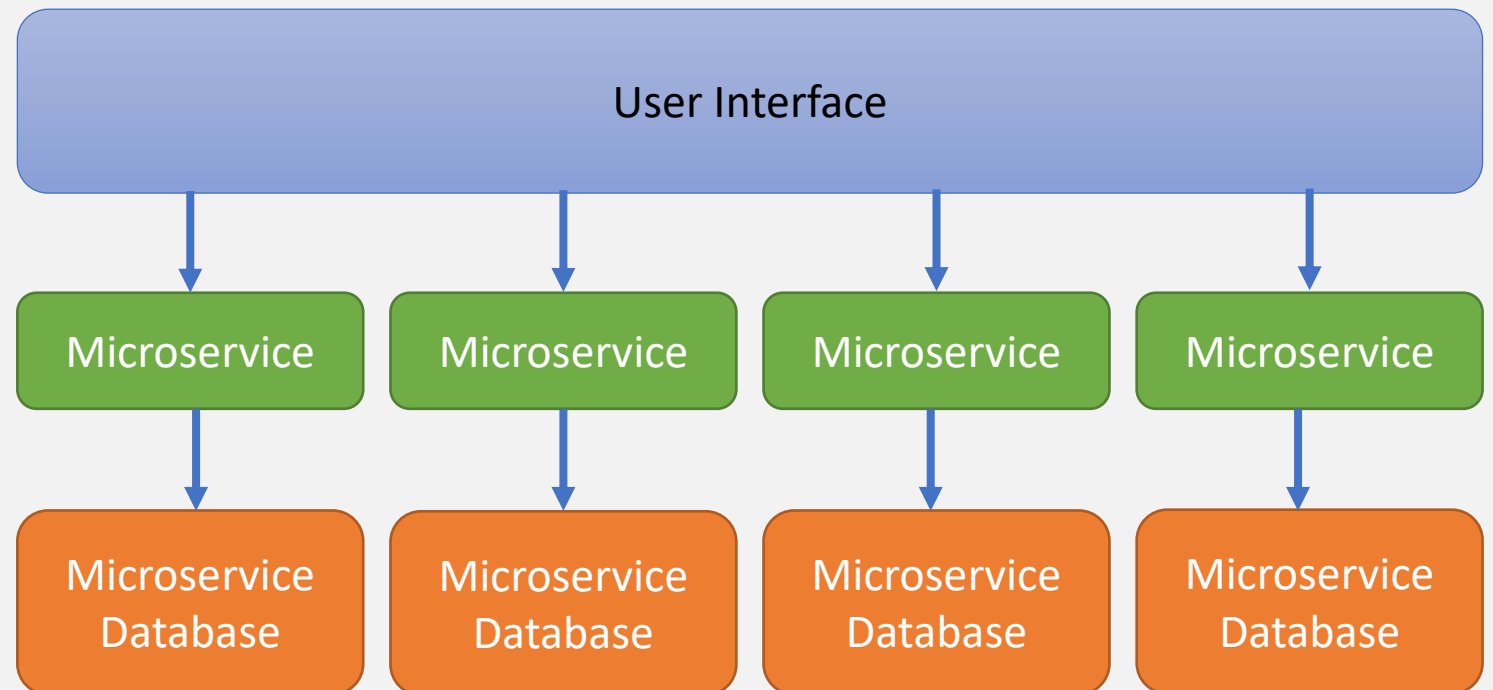
Flexibility

What are Microservices

Monolithic Architecture



Microservices Architecture



Characteristics of Microservices

Autonomous

Characteristics of Microservices

Autonomous

Specialized

Characteristics of Microservices

Autonomous

Specialized

Flexible Scaling

Characteristics of Microservices

Autonomous

Specialized

Flexible Scaling

**Easy
Deployment**

Characteristics of Microservices

Autonomous

Specialized

Flexible Scaling

**Easy
Deployment**

Decentralized

Characteristics of Microservices

Autonomous

Specialized

Flexible Scaling

**Easy
Deployment**

Decentralized

**Failure
Resistance**

Characteristics of Microservices

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Flexible Scaling

**Easy
Deployment**

Decentralized

**Failure
Resistance**

Evolutionary

Advantages of Microservices

Scalability

Advantages of Microservices

Scalability

Fault Isolation

Advantages of Microservices

Scalability

Fault Isolation

**Enhanced Team
Productivity**

Advantages of Microservices

Scalability

Fault Isolation

**Enhanced Team
Productivity**

**Quick
Deployment**

Advantages of Microservices

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**Enhanced Team
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**Quick
Deployment**

Cost Efficiency

Microservice Challenges

Complexity

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**Service Discovery and
Communication**

Microservice Challenges

Complexity

**Service Discovery and
Communication**

**Data Management and
Consistency**

Microservice Challenges

Complexity

**Service Discovery and
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**Data Management and
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**Deployment and
DevOps Automation**

Microservice Challenges

Complexity

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**Monitoring and
Observability**

Microservice Challenges

Complexity

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**Deployment and
DevOps Automation**

**Monitoring and
Observability**

**Service Resilience and
Fault Tolerance**

Microservice Challenges

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Observability**

**Service Resilience and
Fault Tolerance**

Security

Who is using Microservices

The Uber logo, consisting of a black circle with the word "Uber" in white sans-serif font.

Who is using Microservices



Uber

N

Who is using Microservices



Who is using Microservices



Conclusion

- Microservices offer several benefits but also come with their own set of challenges
- They are a good fit for complex, evolving applications due to their scalability and flexibility

Introduction to Event-Driven Architecture

Understanding the Basics