

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
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**Independent
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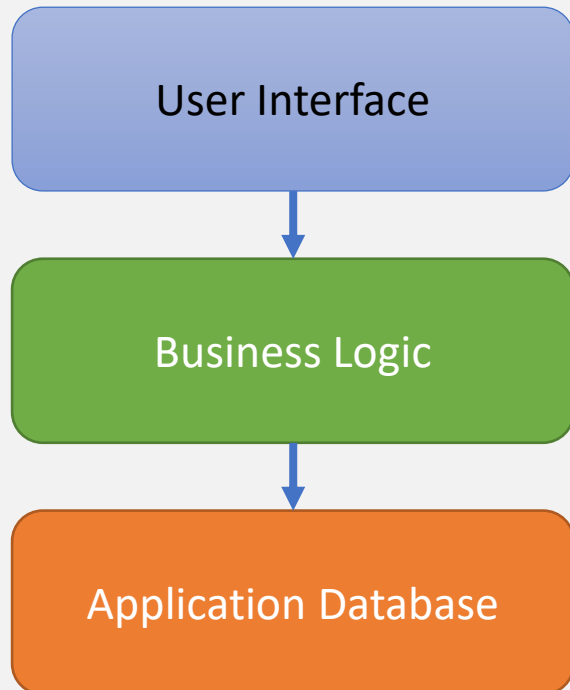
Communication

Flexibility

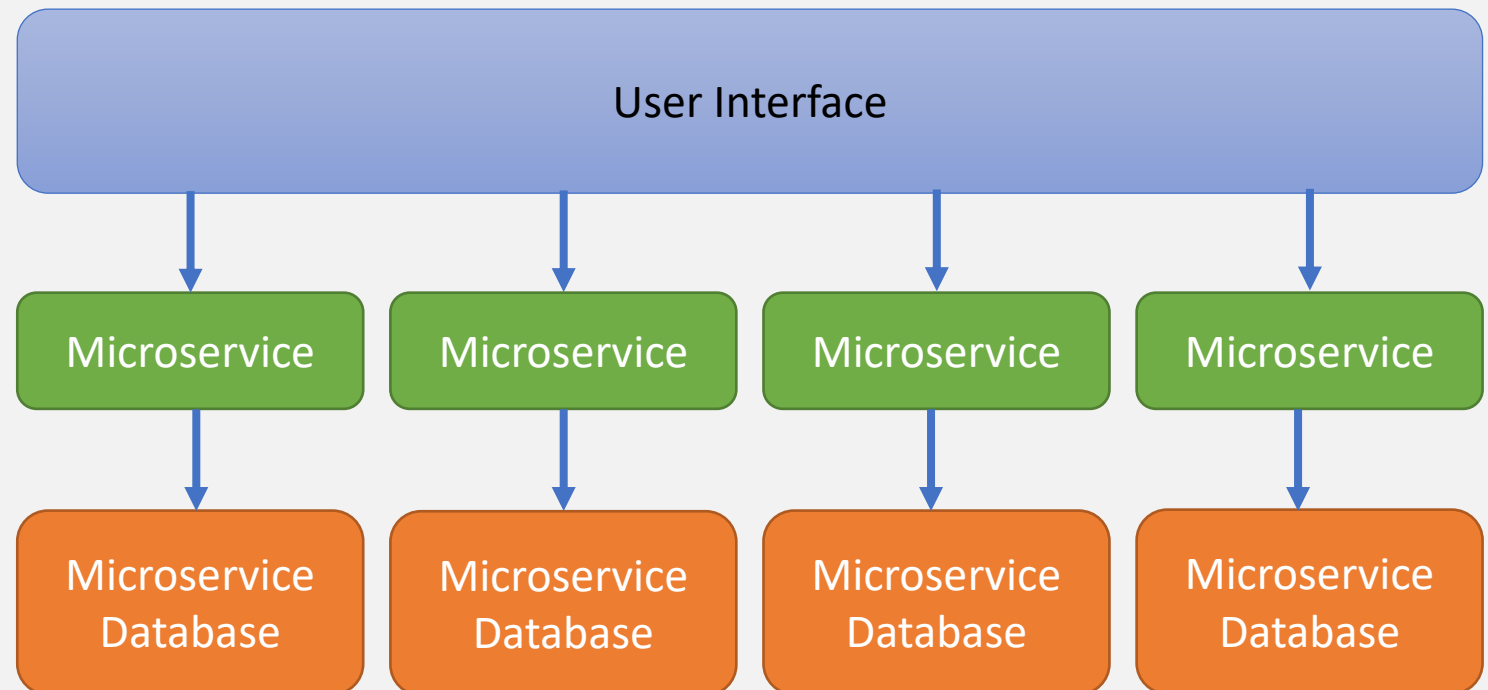


What are Microservices

Monolithic Architecture



Microservices Architecture





Characteristics of Microservices

Autonomous



Characteristics of Microservices

Autonomous

Specialized



Characteristics of Microservices

Autonomous

Specialized

Flexible Scaling



Characteristics of Microservices

Autonomous

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**Easy
Deployment**



Characteristics of Microservices

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**Easy
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Decentralized



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**Easy
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**Failure
Resistance**



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**Failure
Resistance**

Evolutionary



Advantages of Microservices

Scalability



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Scalability

Fault Isolation



Advantages of Microservices

Scalability

Fault Isolation

**Enhanced Team
Productivity**



Advantages of Microservices

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Fault Isolation

**Enhanced Team
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**Quick
Deployment**



Advantages of Microservices

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Cost Efficiency



Microservice Challenges

Complexity



Microservice Challenges

Complexity

**Service Discovery and
Communication**



Microservice Challenges

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**Service Discovery and
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**Data Management and
Consistency**



Microservice Challenges

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**Deployment and
DevOps Automation**



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**Monitoring and
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Microservice Challenges

Complexity

**Service Discovery and
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**Deployment and
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**Monitoring and
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**Service Resilience and
Fault Tolerance**



Microservice Challenges

Complexity

Service Discovery and
Communication

Data Management and
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Deployment and
DevOps Automation

Monitoring and
Observability

Service Resilience and
Fault Tolerance

Security



Who is using Microservices

The Uber logo, which consists of a solid black circle with the word "Uber" written in white, sans-serif font in the center.

Uber



Who is using Microservices

The Uber logo, which consists of a solid grey circle with the word "Uber" written in white, lowercase, sans-serif font in the center.

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