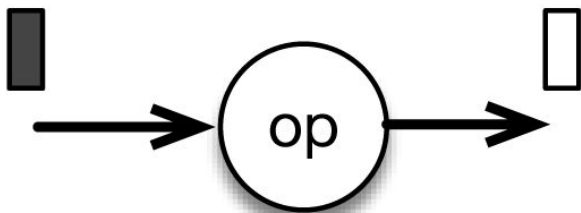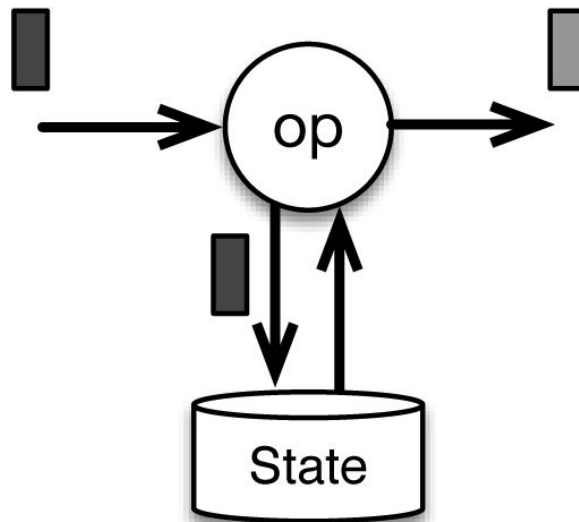# Microservices and Monolith

Agenda

- Stateless vs Stateful

- Scaling

- Load balancing

- Monolith vs Microservices

Stateless vs Stateful

Stateless stream processing

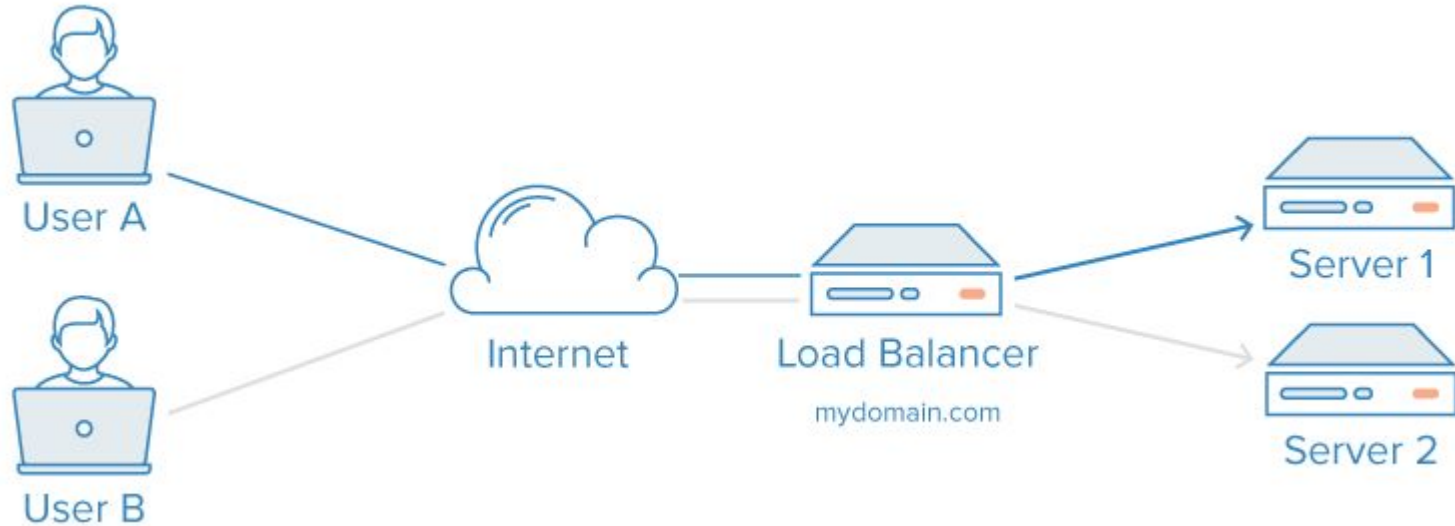Stateful stream processing

Scaling
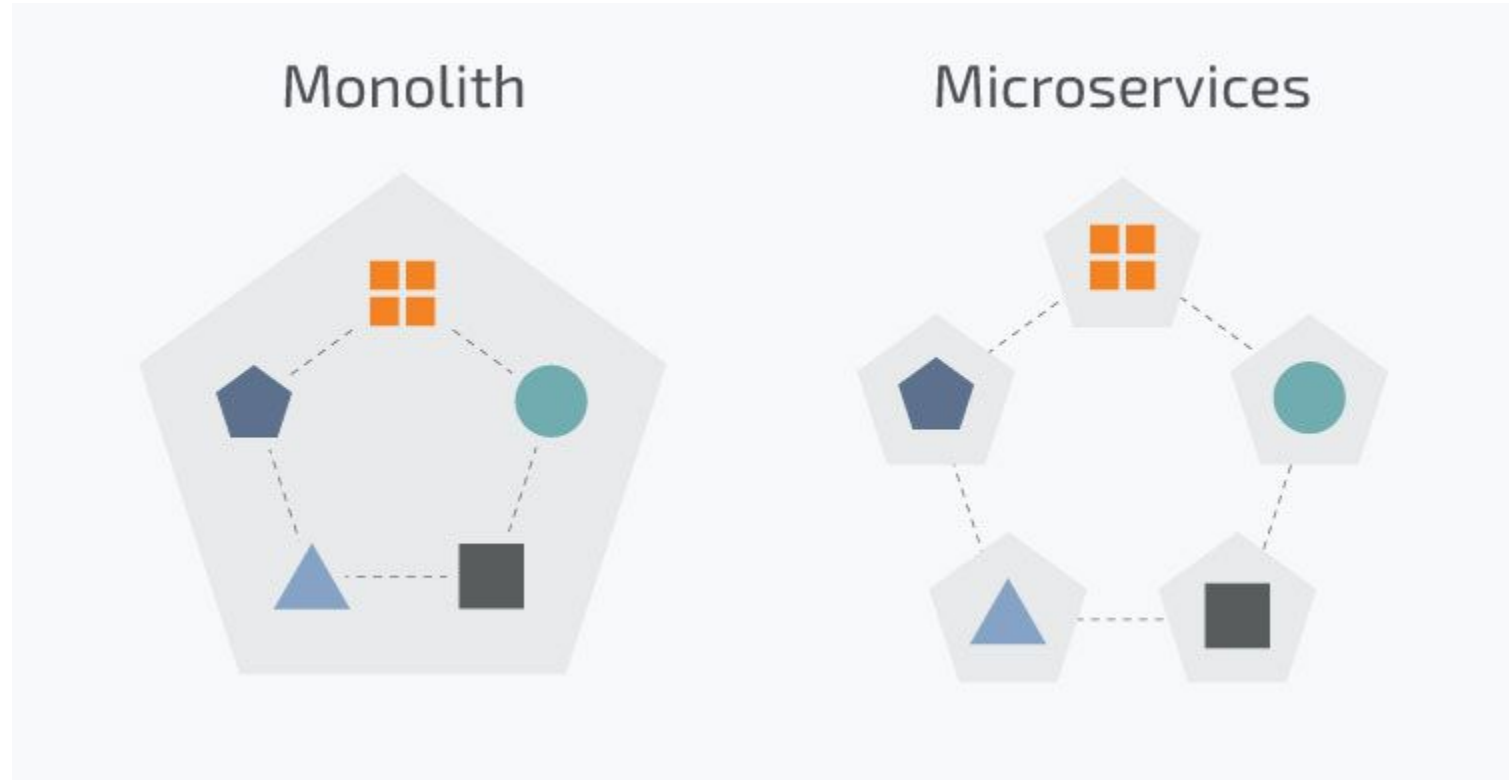

Vertical vs. Horizontal

Load balancing

Load balancing

1. Round-Robin Load Balancing

2. Least Connections Load Balancing

3. Least Time Load Balancing

4. Power of Two Choices

Monolith vs Microservices

Pros

Monolith

- Less cross-cutting concerns
- Easier debugging and testing
- Simple to deploy
- Simple to develop

Microservices

- Independent components
- Easier understanding
- Better scalability
- Flexibility in choosing the technology
- The higher level of agility

Cons

Monolith

- Understanding

- Making changes

- Scalability

- New technology barriers

Microservices

- Extra complexity

- System distribution

- Cross-cutting concerns

- Testing