Understanding Monolithic vs. Microservices Architectures

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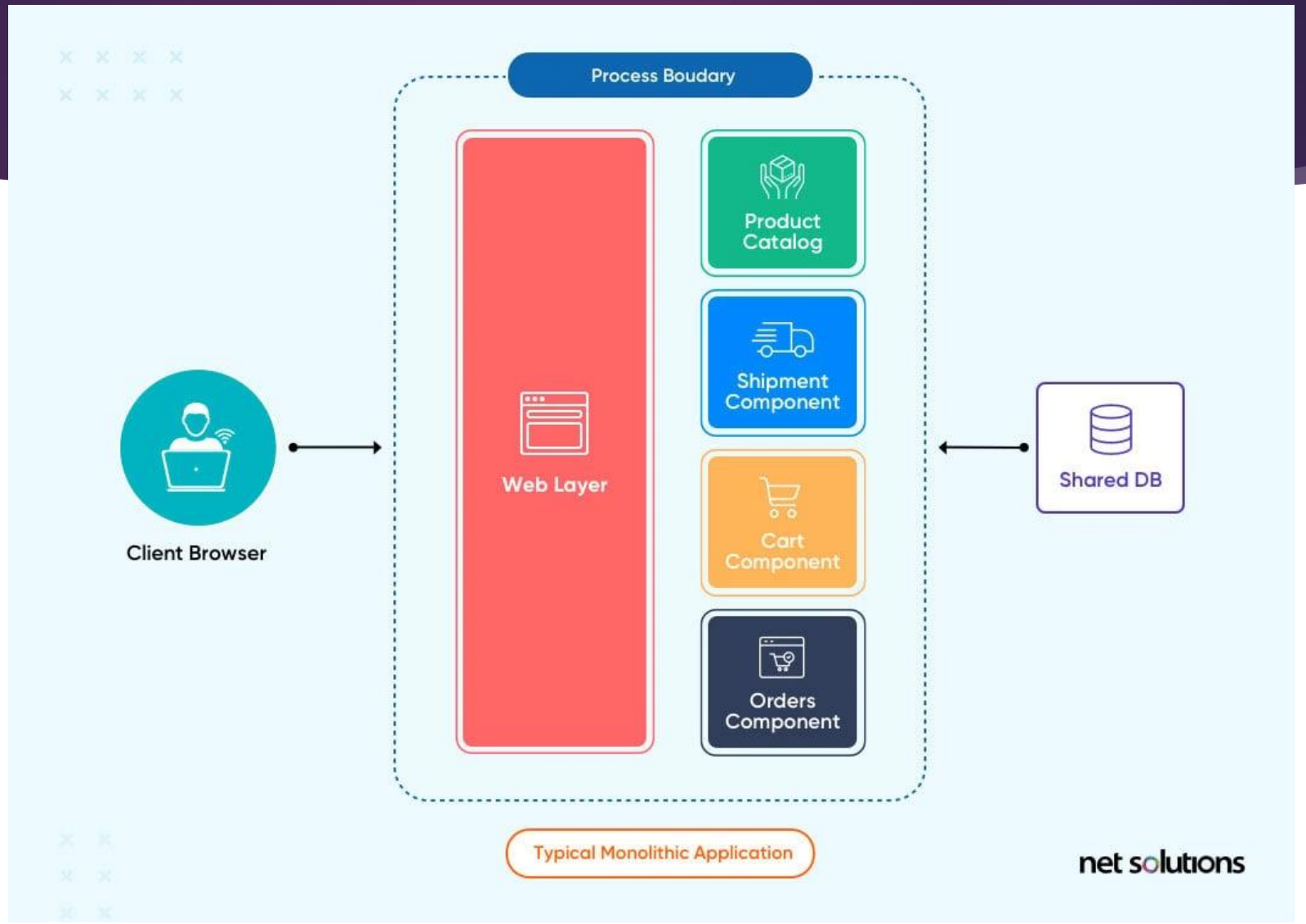
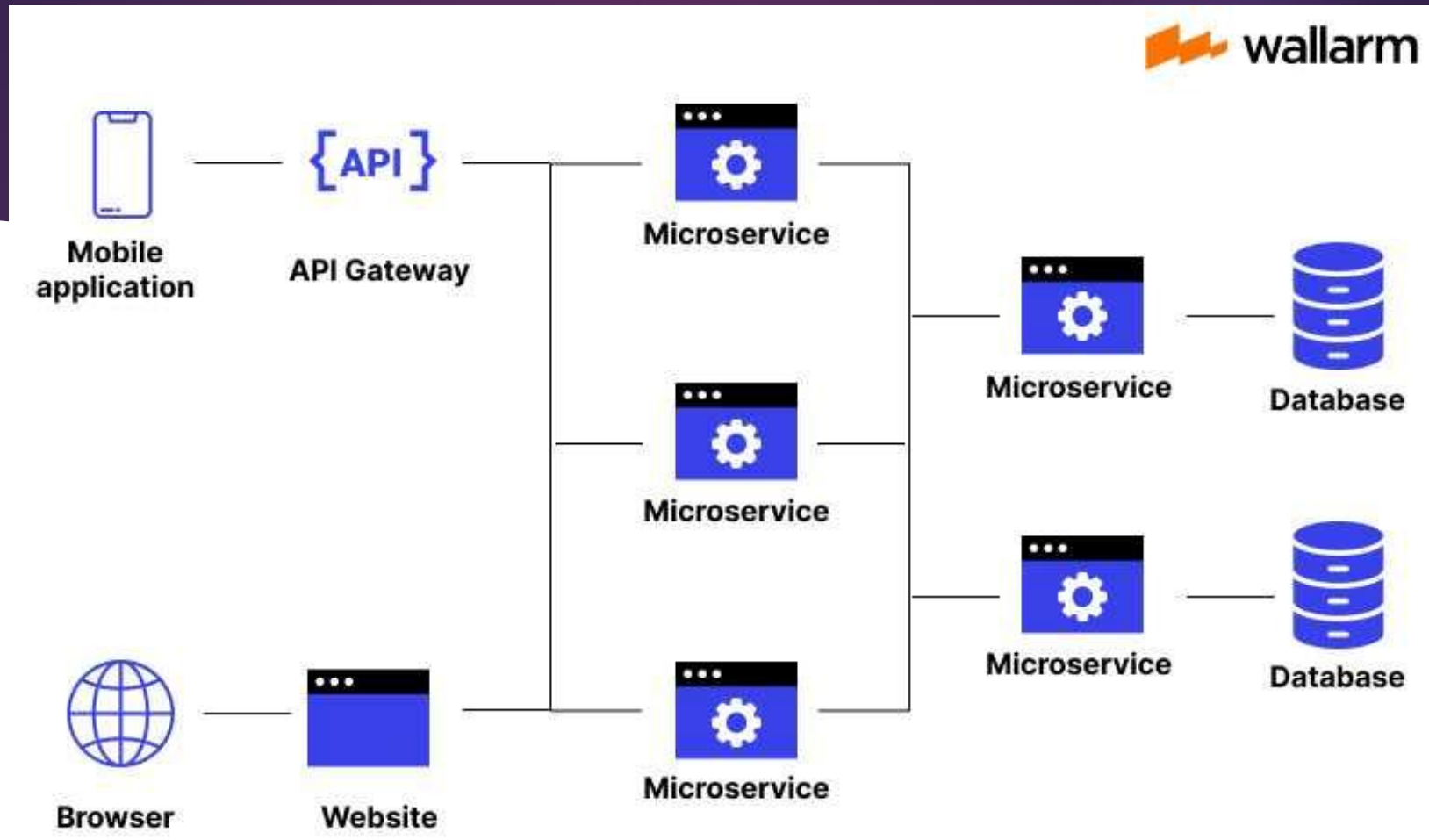
Monolithic Architecture

- It is a traditional model of a software program, which is built as a unified unit that is self-contained and independent from other applications.
- It is a singular, large computing network with one code base that couples all of the business concerns together.
- Example: Traditional ERP Systems, E-commerce websites


Process Boudary
Product Catalog
Shipment Component
Cart Component
Orders Component
Web Layer
Client Browser
Shared DB
Typical Monolithic Application
net solutions

Microservices Architecture

- It is an architectural method that relies on a series of independently deployable services.
- This architectural approach emphasizes the decomposition of the application into smaller, more manageable units, each responsible for a specific functionality or business capability.
- Example: Netflix, Uber, Spotify.


wallarm
Mobile application
API
API Gateway
Microservice
Microservice
Microservice
Microservice
Database
Microservice
Database
Browser
Website

Pros & Cons of Monolithic

- **Pros:**
- Easy Development
- Performance
- Simplified testing and Debugging
- **Cons:**
- Scalability
- Reliability
- Barrier to technology adoption

Pros & Cons of Microservices

- **Pros:**
- Agile
- Flexible
- Continuous deployment
- **Cons:**
- Development Sprawl
- Debugging challenged
- Lack of clear ownership

Personal SWOT Analysis

Concept of SWOT Analysis

- SWOT analysis is a strategic planning tool used to assess the Strengths, Weaknesses, Opportunities, and Threats involved in a project or in a person's situation.
- Strengths and weaknesses are internal factors within your control, such as skills, resources, or personal traits.
- Opportunities and threats are external factors that may affect you, such as market trends, competition, or societal changes.

Strengths

- I observe and analyze the situation calmly.
- I listen to others' arguments and points before passing my judgement.
- Adaptive as a team player.

Weakness

- Very particular in doing task assigned to me which makes things difficult for me.
- Sometimes I procrastinate for doing the work.
- Communication skills professionally needs improvement.

Opportunities

- Staying informed about the new trends in the industry.
- Look for networking opportunities within the community.
- Personal growth through certification course/workshops.

Threats

- Intense competition in the industry.
- Current recession going around the world.
- Rapid changes in technology affects the learning relevance