**Event-Driven Architecture (EDA)**

**What is Event-Driven Architecture (EDA)?**

Event-Driven Architecture is a design pattern where components of a system communicate by producing and consuming events.

- An event is a message that something has happened in the system (like "OrderPlaced", "UserRegistered", etc).

When to use Event-Driven Architecture?

**You want decoupled services** (microservices architecture)

Each service can evolve independently and respond to events.

You need **real-time processing**

E.g., notifications, stock updates, analytics, IoT.

You want **high scalability and responsiveness**

The system reacts immediately to changes without waiting.

You want **to reduce dependencies between modules**

Each module handles its logic without knowing the full system.