Sina Riyahi • 2nd
Software Developer | Software Architect | SQL Server Developer | .Net Developer | .Net MAUI | ...
15m • Follow

TOP 6 Architectural Pattern

1. Monolithic Architecture

💡Description:

A monolithic architecture is a traditional software design where all components of an application—user interface, business logic, data access, etc.—are tightly integrated into a single, unified unit.

🔔Where It Is Used:

Small to medium-sized applications

When rapid development is needed without complex deployment processes

Legacy systems that haven't been modularized

2. Controller-Worker Architecture

💡Description:

This pattern separates the system into a controller that manages incoming requests and delegates tasks to worker components that perform specific operations asynchronously or synchronously.

🔔Where It Is Used:

Systems requiring task delegation and background processing

Web servers handling user requests with background jobs (e.g., job queues)

Distributed systems with decoupled processing

3. Microservices Architecture

💡Description:

An approach where an application is broken down into small, independent services, each responsible for a specific business capability, communicating over network protocols like HTTP or messaging queues.

🔔Where It Is Used:

Large, complex applications requiring scalability and agility

Organizations adopting DevOps practices and continuous deployment

Cloud-native applications

4. Model-View-Controller (MVC)

💡Description:

A pattern that separates an application into three interconnected components:

Model: Manages data and business logic

View: Handles the presentation layer (UI)

Controller: Processes user input, interacts with Model, and selects the View

🔔Where It Is Used:

Web applications (e.g., frameworks like Django, Ruby on Rails, ASP.NET MVC)

Desktop applications with UI components

5. Event-Driven Architecture

💡Description:

An architecture where components communicate asynchronously through events. When an event occurs, it is published to an event bus or message broker, and interested components subscribe to relevant events.

🔔Where It Is Used:

Real-time applications (e.g., chat, stock trading)

Microservices communicating asynchronously

IoT systems and systems requiring loose coupling and responsiveness

6. Layered Architecture

💡Description:

An architecture where the system is divided into layers with specific responsibilities, such as presentation, business logic, data access, etc. Each layer communicates only with adjacent layers.

🛎️Where It Is Used:

Enterprise applications with clear separation of concerns

Systems requiring maintainability and modularity

Want to know more? Follow me or connect🫂

Please don't forget to like❤️ and comment💭 and repost♻️

x.com/sina_riyahi

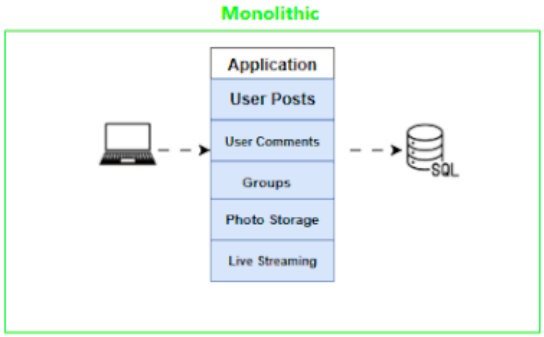
medium.com/@Sina-Riyahi

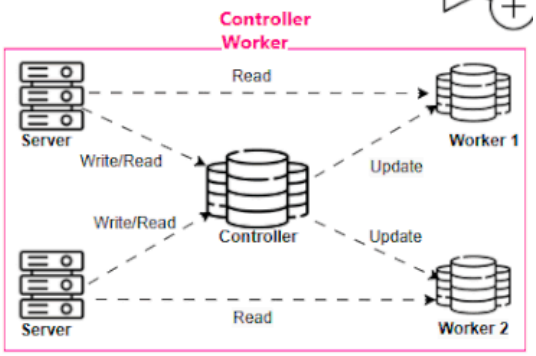
Instagram.com/Cna_Riyahi

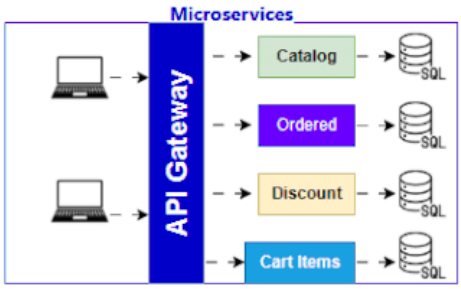
github.com/sinariyahi

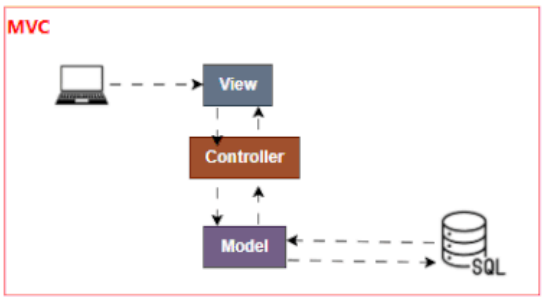
Sina Riyahi

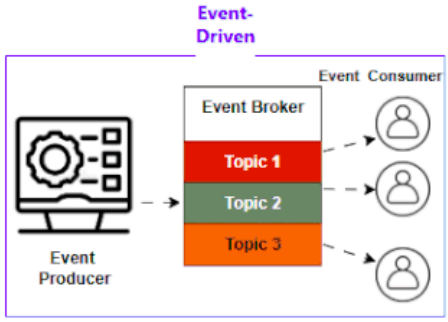
Top 6 Architectural Pattern

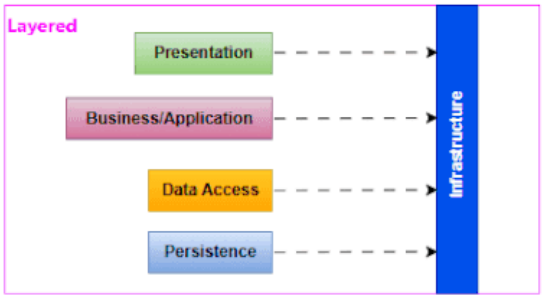












SERKUT YILDIRIM and 13 others

18 comments 2 reposts

Like Comment Repost Send

Anton Martyniuk • Following

Microsoft MVP | Helping 30K+ Software Engineers Improve .NET Skills and Craft Better Softw...

11m

Remember going down by this list when starting a new project:

1. Monolith ↓
2. Modular Monolith ↓
3. Microservices

Like 1 | Reply 1 reply

Sina Riyahi Author 7m

Software Developer | Software Architect | SQL Server Developer | .Net Developer | .Net ...

Anton Martyniuk Good idea