🍔 Food Delivery App — Monolith vs Microservices

🧩 Core Features (Context)

- User login
- Restaurant listing
- Menu & search
- Order placement
- Payment
- Delivery tracking
- Notification

🧱 Monolith Approach

📐 Architecture

সব feature একটাই backend app-এর ভিতরে:

```
Food-App Backend
 ├── Auth
 ├── Restaurant
 ├── Order
 ├── Payment
 ├── Delivery
 └── Notification
```

✅ **Monolith — Pros**

- Simple architecture
- Fast development
- Easy testing & debugging
- Low infra + DevOps cost

❌ **Monolith — Cons**

- Order spike হলে পুরো app scale করতে হয়
- Payment bug → whole app down
- Large team এ merge conflict
- Slow deployments

🟢 **When Monolith is Good**

- Early-stage startup
- Small team (≤10)
- Low traffic
- MVP phase

📌 Interview line:

“Monolith helps us validate the product quickly.”

🧩 **Microservices Approach**

📐 **Architecture**

Feature অনুযায়ী আলাদা services:

API Gateway

├── Auth Service

├── Restaurant Service

├── Order Service

├── Payment Service

├── Delivery Service

└── Notification Service

✅ Microservices — Pros

- Order service independently scale করা যায়
- Payment failure isolate থাকে
- Multiple teams parallel কাজ করতে পারে
- Faster independent deploy

❌ Microservices — Cons

- High complexity
- Network latency
- Distributed debugging
- Higher infra cost

🔵 When Microservices is Better

- High traffic (lunch/dinner peak)
- Large team

- Rapid feature development
- High availability needed

📌 Interview line:

“Microservices allow independent scaling during peak hours.”