

## 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 ( $\leq 10$ )
- Low traffic
- MVP phase

📌 Interview line:

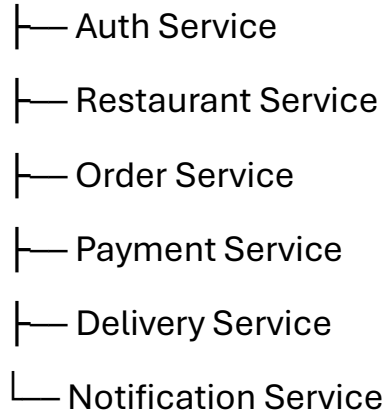
“Monolith helps us validate the product quickly.”

## 🧩 Microservices Approach

### 🏠 Architecture

Feature অনুযায়ী আলাদা services:

## API Gateway



### ✓ 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.”