

Load Balancer Types

👉 Round Robin & Least Connections

1. Round Robin

📌 কী?

👉 Requests গুলো sequential ভাবে একটার পর একটা server-এ পাঠানো।

🔄 Flow Example

3টা server: S1, S2, S3

Requests যাবে:

Req1 → S1

Req2 → S2

Req3 → S3

Req4 → S1

Req5 → S2

✅ Pros

- Simple
- Easy to implement
- Works well when servers are similar

✗ Cons

- Server load ignore করে
- Heavy request + light request same weight পায়

● When to Use Round Robin?

- All servers same capacity
- Requests similar type
- Simple system

📌 Interview line:

“Round Robin works best when servers are homogeneous.”

2. Least Connections

📌 কী?

👉 যে server-এ currently active connections সবচেয়ে কম, ওখানে request পাঠানো।

⌚ Flow Example

S1 → 10 active connections

S2 → 3 active connections

S3 → 7 active connections

Next request → S2

✓ Pros

- Better load distribution
- Handles long-running requests well

✗ Cons

- Slightly complex

- Tracking connections overhead

● When to Use Least Connections?

- Requests duration unpredictable
- Some requests heavy
- Real-time apps

👉 Interview line:

“Least Connections is effective when request processing time varies.”

⚖️ Quick Comparison

Feature	Round Robin	Least Connections
Simplicity	High	Medium
Load awareness	✗	✓
Best for	Equal servers	Variable load
Overhead	Low	Slight

🍔 Food Delivery App Example

- Menu fetch → Round Robin ok
- Order placement → Least Connections better

FAANG Cheat Sentence

এই sentence ব্যবহার করো:

“We use Round Robin for uniform traffic, and Least Connections for uneven workloads.”

One-Line Summary

Round Robin = turn by turn

Least Connections = least busy server