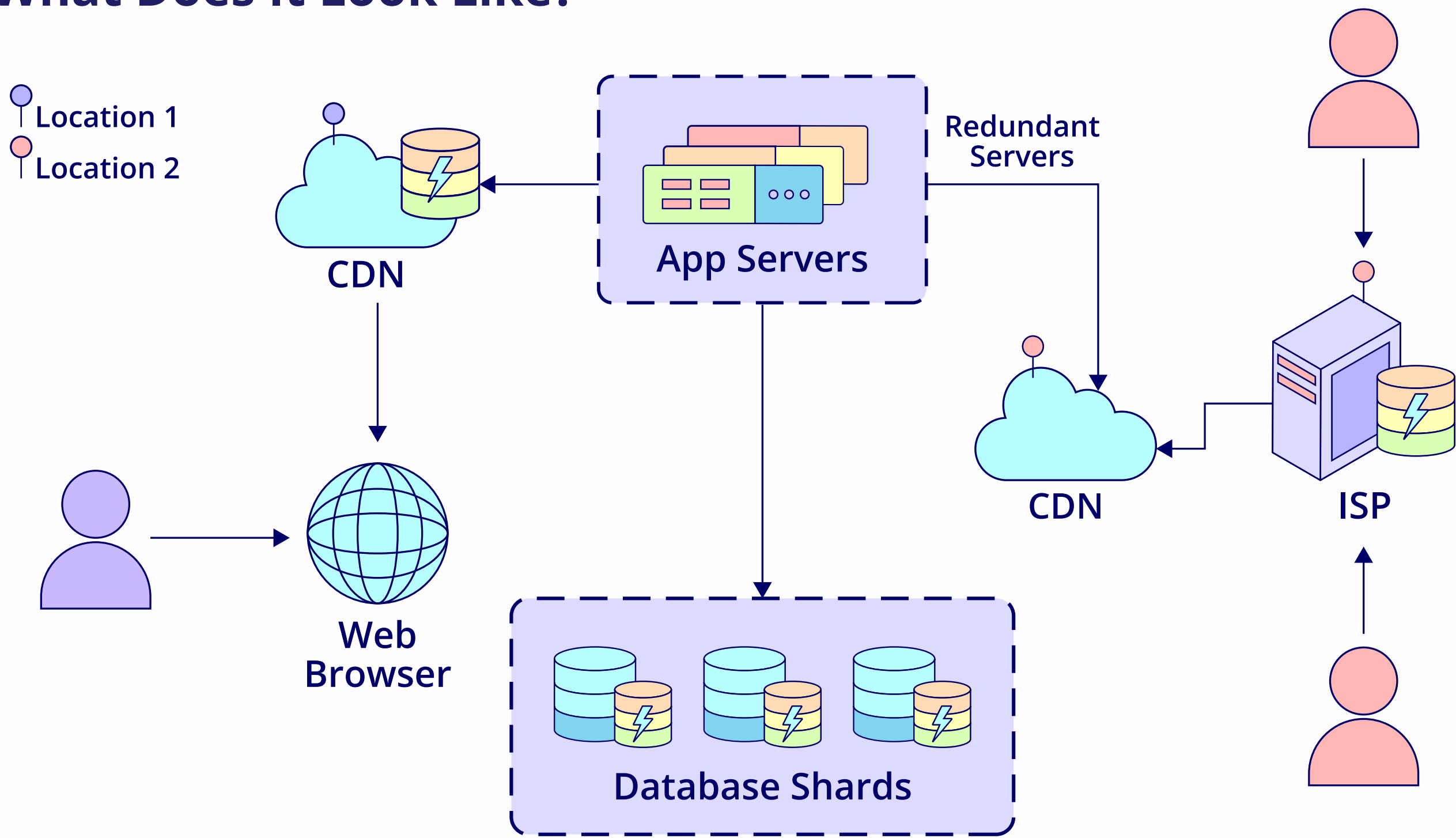# What is Performance in System Design?

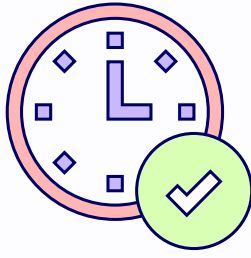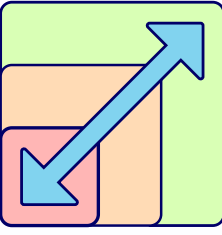## Performance

The degree of efficiency of a system while performing its functionalities

What Does It Look Like?

Location 1
Location 2

CDN
App Servers
Redundant Servers
Web Browser
Database Shards
CDN
ISP

How to Measure It

Time Behavior

- Latency
- Response time
- Load time

Resource Utilization

- CPU/memory utilization
- Disk utilization

Capacity

- Hardware utilization
- Scalability

How to Acheive It

Optimization Redundancy CDNs Monitoring Caching

Parallel Processing Load Distribution

What to Avoid

Poor Fault Tolerance Inadequate Load Testing Poor Caching Mechanisms