## What is the benefit of using master-slave architecture rather than building on master only?

The benefits of using a master-slave architecture include:

Scalability: Distributing the workload across multiple slaves enables the system to handle more requests and process data in parallel.

Fault tolerance and high availability: If one slave fails, the master can delegate tasks to other available slaves, ensuring uninterrupted system functionality.

Performance optimization: Offloading read-intensive operations to slaves improves overall system performance and resource utilization.

Load balancing: The master can evenly distribute incoming requests to available slaves, preventing bottlenecks and optimizing response times.

Security and isolation: Separating the master and slave components establishes security boundaries and isolates sensitive data or functionality.

These benefits enhance system performance, reliability, and security while allowing for scalability and fault tolerance.

## 2- What is different between authorization and authentication?

Authentication is the process of verifying a user's identity, while authorization is granting permissions to an authenticated user for accessing specific resources or performing certain actions.