3Servers:
Three servers are added to ensure redundancy and high availability. If one server fails, the other can continue serving requests, minimizing downtime.
b. 1 Web Server (Nginx):
Nginx is added as the web server to handle incoming HTTP requests. It's known for its high performance, scalability, and efficient handling of concurrent connections.
c. Application Server:
The application server is added to execute the website's codebase, handle business logic, process user requests, and interact with the database.
d. Load Balancer (HAProxy):
HAProxy is added as the load balancer to distribute incoming traffic across multiple servers. It improves performance, ensures scalability, and provides fault tolerance.
e. Application Files (Code Base):
The application files contain the website's code, scripts, and resources necessary for its functionality.
f. Database (MySQL):
MySQL is added as the database to store and manage website data, such as user information, content, and transactions.

Load Balancer Distribution Algorithm:

HAProxy is configured with a round-robin distribution algorithm. It routes incoming requests sequentially to each server in a rotation, ensuring a balanced workload distribution.
Active-Active Setup:
The load balancer enables an Active-Active setup, where all servers actively handle incoming traffic simultaneously.

Primary-Replica (Master-Slave) Database Cluster:

In a Primary-Replica setup, the Primary node (MasterDB) handles write operations and updates data. The Replica nodes (SlaveDBs) replicate data from the Primary node and handle read operations, improving read scalability and fault tolerance.