

There are several difficulties. The following are some possible obstacles you may face:

Configuration management: environment variables: It can be difficult to manage and secure environment variables (such as JWT secrets for database connections) when they are used across several environments (development, staging, and production).

Configuration Files: It is essential to make sure that configuration files are properly configured and do not include sensitive data.

Version Compatibility in Dependency Management: It can be difficult to make sure that all dependencies (frameworks, libraries) are compatible with one another and the deployed environment.

Updates: Handling dependents' updates without causing unfavorable modifications or vulnerabilities.

Re scaling

Load balancing: Configuring load balancers correctly to split traffic among several instances of your application.

Horizontal scaling: Adding more instances to your application to ensure it can withstand an increase in load.

Performance Enhancement: Resource Management: Tracking and refining CPU, memory, and network use to guarantee effective operation.

Caching: Using efficient caching techniques to lessen load and speed up response times.

Security: Data Protection: Making sure that data, particularly sensitive data, is safeguarded both during transmission and storage.

Authentication and Authorization: Ensuring that authorization rules are effectively implemented and that JWT authentication is configured and secured.

Observation and Record-Keeping:

Application monitoring: Putting in place mechanisms for tracking performance and health indicators for applications.

The implementation of centralized logging allows for the collection and analysis of logs from various system components.

Automation of Deployment:

CI/CD Pipelines: Automating testing and deployment by establishing pipelines for continuous integration and continuous deployment.

Rollback processes: Putting rollback processes in place if a deployment causes problems.

Managing database schema migrations and making sure they are implemented are the responsibilities of database management. accurately and without losing any data.

Data Backup: Ensuring that protocols for data recovery are in place and doing frequent

backups.

Infrastructure Management: Provisioning: appropriately assembling and configuring the servers, databases, and other underlying infrastructure.

Infrastructure as Code: Using code (such as Terraform) to manage infrastructure and make sure it is updated.

Legal and compliance Requirements:

Rules: Ensure that your application conforms with all applicable laws and industry standards (such as HIPAA and GDPR).

Thorough planning, testing, and ongoing monitoring are necessary to address these issues and guarantee a stable deployment and operation.