



## Objective

To design, architect, implement and automate a highly resilient and scalable CI/CD pipeline for AI enabled product in Healthcare domain with all compliance.

## Scope

- Comprehend product architecture and record deployment steps.
- Discern applicable and best suited Amazon Web Services for Deployment.
- Identify and sift the relevant DevOps tools.
- Design and Implement the resilient CI/CD Pipeline with identified tools.
- Aid secure webhosting.
- Educate and clean Handover.
- MongoDB, Postgres SQL (Databases)
- Shell (Scripting and Automation)
- Supervisor (Service)
- Istanbul (Test case Reporting)
- HTML and JavaScript (Custom monitoring Dashboard with Authentication)
- Postfix (Email notification)

## Challenges

- Finite time bounds.
- Evangelize DevOps culture and best practises.
- Comprehend product architecture and record deployment steps of advancing product.
- Architect and Automate alternative solution to AWS Elastic Beanstalk due to product design.
- Design and Automate Custom Failover/Load balancing model using Nginx and AWS Route53 services.
- Create MongoDB Replication cluster

## Technology

- Amazon Web Services – Cloud computing (IAM, Route53, VPS, EC2, S3, RDS, CloudWatch)
- Bitbucket (Code versioning and management)
- Jenkins (Orchestration)
- Saltstack (Configuration Management)
- Nginx (Failover and Webserver)

## Benefits

- Exposure and Hands-on on Amazon Web Services with better understanding of constraints.
- Implementation of MongoDB Replication Cluster.
- Preach and induce DevOps culture in Organization.

## Key features

- Strategizing code management with and Auto versioning.
- Building Automated CI/CD Pipeline orchestration using various Jenkins Plugins.
- Custom scripts to automate Installation and configuration of Django Framework and service management using Supervisor.
- Maintain ENV. State and Provision new ENV. using Saltstack.
- Clean Handover with Industry standard document and extensive WebEx Recording.
- Customized Environment monitoring dashboard with email notifications/alerts providing transparent view to management.