Automating Secure Deployment of Board game Listing WebApp on AWS

Problem Statement: Automating Secure Deployment of Board game Listing WebApp on AWS

As a DevOps Engineer, the key challenges in deploying and managing the Boardgame Listing WebApp include:

1 Infrastructure Automation: Setting up and managing AWS EC2 instances efficiently using **Terraform** or **Ansible** to ensure repeatable and scalable deployments.

2 **CI/CD Pipeline Implementation:** Automating the **build, test, and deployment** process using **Jenkins/GitHub Actions**, ensuring seamless updates without downtime.

3 **Security & Compliance:** Implementing **Spring Security best practices**, enforcing authentication and authorization, and performing **vulnerability scanning** using **SonarQube, Trivy, and OWASP Dependency Check**.

4 **Monitoring & Logging:** Integrating **Prometheus and Grafana** for real-time monitoring, along with **CloudWatch logs** for debugging and performance tracking.

5 **Database Management:** Managing the **H2 Database** efficiently, ensuring proper schema migrations, backups, and potential transitions to a **managed RDS solution** for production readiness.

6 **Scalability & High Availability:** Implementing **load balancing and auto-scaling** strategies to handle varying user traffic while optimizing AWS resource utilization.

Objective:

To establish a **fully automated, secure, and scalable DevOps pipeline** that ensures rapid, reliable, and secure deployment of **Board game Listing WebApp** on AWS, while maintaining **security, performance, and compliance best practices**. 🚀 🔐

Source Code : https://github.com/DevOpsInstituteMumbai-wq/Automating-Secure-Deployment-of-Board-game-Listing-WebApp-on-AWS.git