# 12factors compliances checklist:

1. **Codebase**: git repository - GitHub

2. **Dependencies**: Maven as dependency management (pom.xml)

3. **Config**: Avoid the .properties and .yaml files for sensitive data like password, secret key. etc. Credentials are injected via environment variables on Github Secrets and variables (Environment secrets and Repository secrets), and Kubernetes (AWS EKS) secrets.

4. **Backing Services**: H2 for ease of use during testing. MySQL or any other relational database can be used for staging & production environment.

5. **Build, Release and Run**: Docker to build -> Test -> release -> run separation.

6. **Processes**: Runs as stateless services with RESTful APIs, adhering to microservices principles.

7. **Port Binding**: Exposes HTTP APIs via Spring Boot, mapped dynamically via environment variables (EXPOSE 8080)

8. **Concurrency**: Can scale horizontally by deploying multiple instances (Docker + Kubernetes ready).

9. **Disposability**: Fast startup and graceful shutdown via Spring Boot’s lifecycle.

10. \***Dev/Prod Parity**: Using H2 in dev for ease of testing purpose. In actual staging & production can use MySQL or any other relational database.

11. \***Logs**: Currently logs to console only—consider using structured logging (ELK, CloudWatch) for better observability.

12. Admin Processes: Supports migrations and database seeding via SQL scripts.

*\*means partially complied.*