

Password Manager Project - Documentation

This document explains the Password Manager Project (v3), a Spring Boot web application for secure credential management. It includes Docker and Kubernetes setup for production deployment.

Project Flow:

1. User Registration & Login (Spring Security)
2. Credential Management (store, search, edit, delete, export)
3. Password encryption before storage
4. Responsive UI with Thymeleaf + Bootstrap
5. Dockerfile for containerization
6. Kubernetes manifest for production deployment

File Structure:

- pom.xml → Maven dependencies
- src/main/java/com/example/passman/
 - PassmanApplication.java → Spring Boot entrypoint
 - model/ → Entities (AppUser, Credential)
 - repo/ → Spring Data JPA Repositories
 - service/ → Business logic & encryption
 - controller/ → Web controllers
- src/main/resources/templates/ → Thymeleaf templates
- Dockerfile → Multi-stage build, non-root, healthcheck
- k8s/production.yaml → Deployment, Service, Ingress, PVC, HPA

Delivery & Deployment Steps:

1. Extract passman_project_v3.zip
2. Build project: mvn clean package -DskipTests
3. Run locally: java -jar target/passman-0.0.1-SNAPSHOT.jar
4. Build Docker image: docker build -t passman:latest .
5. Run Docker: docker run -p 8080:8080 passman:latest
6. Push image to registry
7. Deploy to K8s: kubectl apply -f k8s/production.yaml
8. Access app via Ingress (update host & TLS secret)