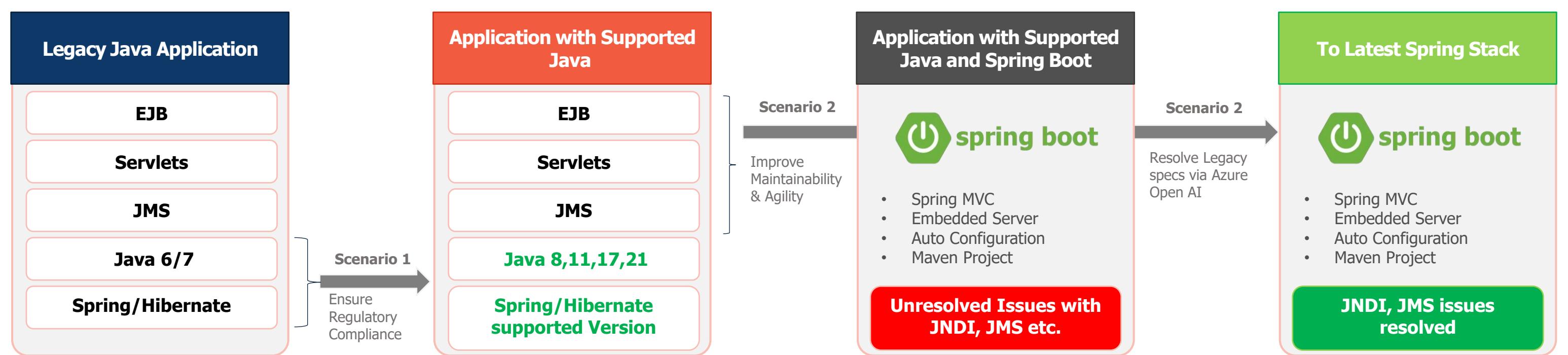




# Introduction - XJAVA Modernization Accelerator

Fast-track your Java upgrade and modernization journey using Coforge's home-grown accelerator. Seamlessly migrate & modernize legacy Java applications into Spring Boot-based applications - enabling regulatory compliance and improving maintainability.



## Accelerator Benefits

Faster Time to Market (~ 30% reduction in effort)

API Led Design

Enhanced Code Quality

Code Consistency

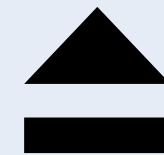
Tool Compatibility

Security Updates

Future Readiness

# Key Features - XJAVA Modernization Accelerator

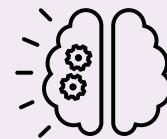
**XJAVA Modernization Accelerator** automates Java upgrades by removing deprecated APIs and updating frameworks like Spring Boot and Hibernate and modernizes legacy technologies such as EJB and Servlets to contemporary platforms like Spring Boot. Enhanced by AI technologies, it delivers a faster, smarter and more secure path to modernization, complemented by detailed assessment reports with complexity scoring and cloud-readiness insights.



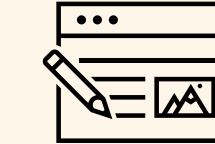
## Java Upgrade



## Dependency Modernization



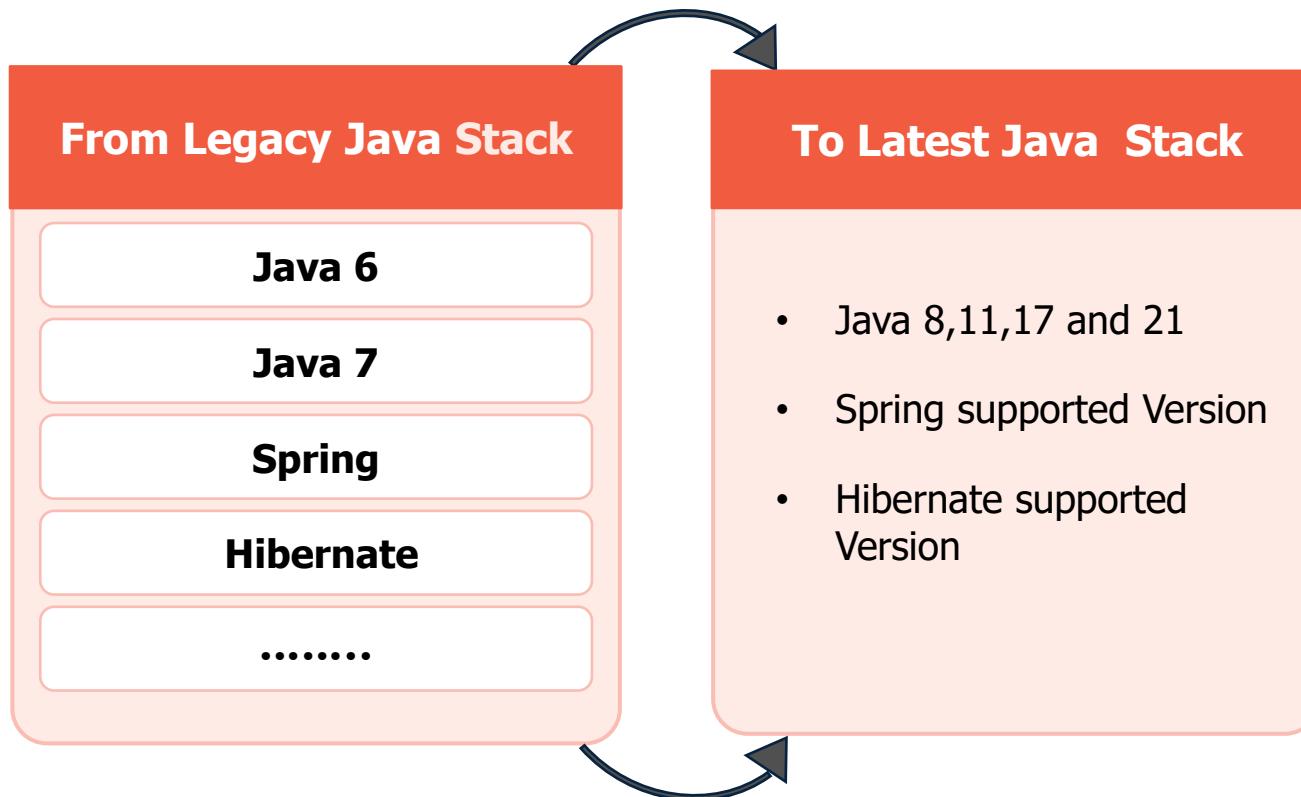
## AI-Driven Legacy-to-Spring Refactoring Engine



## Automated Assessment & Cloud Readiness Reports

# Java Upgrade

Fast-track your Java application upgrade and modernization journey using Coforge's home-grown accelerator. Seamlessly migrate legacy Java 6+ applications to Java 8,11,17 and 21, enhancing performance, security, and maintainability without altering the core architecture or design.



This is Coforge XJava Accelerator to upgrade / modernize Java codebase

Select an option:

1. Assessment Report for Modernize/Upgrade Legacy Java Code and Cloud Readiness
2. Upgrade Java and its dependencies (e.g. 1.6 -> 1.8 with Spring dependency)
3. Modernize Legacy Java Frameworks (e.g. EJB -> Spring Boot)

Enter option number (1-3): 2

Enter the source code path (Maven or Gradle project): C:\student-course-app8

Current Java version in pom.xml: 1.8

JDK Version	Spring Core	Spring Boot	Hibernate	JPA
Java 1.6	Spring 4.3.x	Not Supported	Hibernate 4.3.x	JPA 2.1
Java 1.7	Spring 4.3.x	Spring Boot 1.5.x	Hibernate 5.0.x	JPA 2.1
Java 1.8	Spring 5.3.x	Spring Boot 2.7.x	Hibernate 5.6+	JPA 2.2
Java 11	Spring 5.3.x	Spring Boot 2.7.x	Hibernate 5.6+	JPA 2.2
Java 17	Spring 6.x	Spring Boot 3.x	Hibernate 6.x	Jakarta Persistence
Java 21	Spring 6.x	Spring Boot 3.x	Hibernate 6.x	Jakarta Persistence

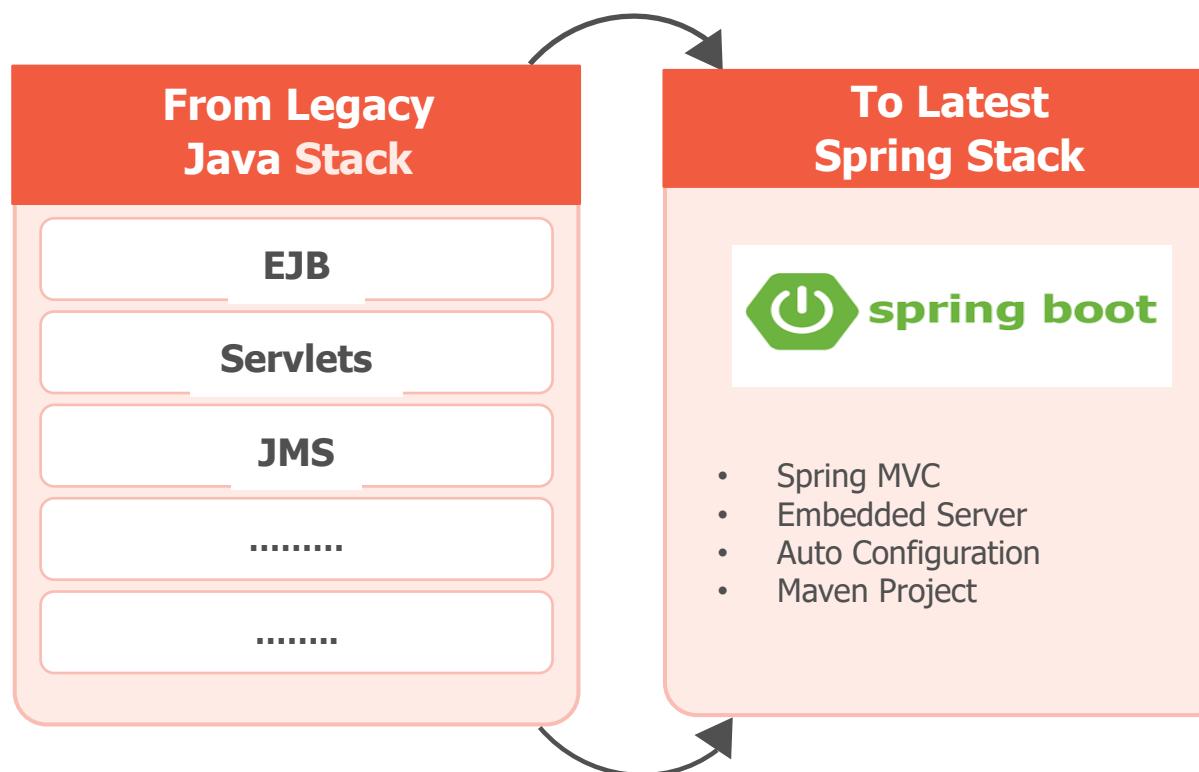
Based on Java version upgrade, associated dependencies are updated as per table above.

Select upgrade option :

1. Upgrade to Java 11
2. Upgrade to Java 17
3. Upgrade to Java 21

# Java Modernization

Fast track application modernization journey by using Coforge home-grown accelerator. Convert Java based applications initially built on legacy / non-modern frameworks into latest Spring-Boot Java apps, with REST APIs & Microservices Design. Further elevate your applications by integrating advanced AI capabilities powered by **Azure OpenAI** enabling intelligent features, automation and enhanced user experiences.



```
migrator:> scan C:/Users/Manoj.1.Mahani/project/XJava-Upgrade-ModernizationKit/Sample-Apps/ejb-java-ee-8-api-rest-com-jboss-wildfly
scanning 'C:/Users/Manoj.1.Mahani/project/XJava-Upgrade-ModernizationKit/Sample-Apps/ejb-java-ee-8-api-rest-com-jboss-wildfly'

Checked preconditions for 'C:\Users\Manoj.1.Mahani\project\XJava-Upgrade-ModernizationKit\Sample-Apps\ejb-java-ee-8-api-rest-com-jboss-wildfly'
[ok] Found pom.xml.
[ok] 'sbm.gitSupportEnabled' is 'false', Nothing will be committed.
[ok] Found required source dir 'src/main/java'.
[ok] Required Java version (17) was found.

Maven          100% |████████████████████████████████| 2/2 (0:00:02 / 0:00:00)

Applicable recipes:
1) coforge-initialize-spring-boot-migration
   -> Initialize an application as Spring Boot application.
2) coforge-migrate-jpa-to-spring-boot
   -> Migrate JPA to Spring Boot
3) coforge-migrate-stateless-ejb
   -> Migration of stateless EJB to Spring components.
4) migrate-jax-rs
   -> Any class has import starting with javax.ws.rs
5) coforge-migrate-tx-to-spring-boot
   -> Migration of @TransactionAttribute to @Transactions
6) coforge-migrate-jms
   -> Convert JEE JMS app into Spring Boot JMS app
```

# Assessment Report Generation

This report provides a comprehensive view of your application's modernization readiness. It includes:

- **Cloud Readiness Analysis:** Highlights areas and potential issues related to cloud migration.
- **Java Upgrade Assessment:** Identifies Legacy Java versions and associated framework concerns.
- **Actionable Guidance:** Offers references and links to recommended solutions for addressing identified issues.

### XJava Assessment Report for Upgrade and Cloud Readiness

Applications > student-course-app8

#### Assessment Report

**Application Information**

Application Name	: student-course-app	Build Tools	: Maven
JDK Version	: 1.8	Frameworks	: Spring, Spring Boot

**Issue Summary**

Cloud Readiness



Java Upgrade



CRITICALITY: █ Mandatory █ Potential █ Optional

**Cloud Readiness**

Issue Category	Criticality
> containerization	<span style="color: purple;">█</span> Mandatory (1)
> Database Migration	<span style="color: grey;">█</span> Optional (1)
> Local Credential	<span style="color: blue;">█</span> Potential (1)
> openliberty-migration	<span style="color: purple;">█</span> Mandatory (1)
> Spring Migration	<span style="color: blue;">█</span> Potential (1)

**Java Upgrade**

Issue Category	Criticality	Code Impact
> Framework Upgrade	<span style="color: purple;">█</span> Mandatory (2)	<span style="color: grey;">█</span> Optional (1)
> Java Version Upgrade	<span style="color: purple;">█</span> Mandatory (1)	6