구분	TYPE	Spec	Library (artifact)	Version
Backend	OS	Windows		
	WAS	Tomcat 9.x		9.x
	DB	Oracle XE		11g or 18c
	http://maven.jahia.org/maven2/ (jahia)		ojdbc6 또는 ojdbc8	12.1.0.1 / 18.3.0.0
	Charset	UTF-8		
	JDK	openjdk		1.8.x
	server-side script	JSP	javax .servlet .jsp -api	2.3.0
		Servlet	javax .servlet .jsp -api	4.0.0
		JSTL	jstl	1.2
	MVC framework	Spring	spring-webmvc	4.3.30
	ORM	Spring jdbc/tx	spring-jdbc	4.3.30
		MyBatis	mybatis	3.4.6
		MyBatis/Spring	mybatis-spring	1.3.3
	AOP	aspectjrt	aspectjrt	1.9.7
		spring-aspects	spring-aspects	4.3.30
		aspectjweaver	aspectjweaver	1.9.7
		aspectjtools	aspectjtools	1.9.7
	Logging	log4j2	log4j-core	2.14.1

		log4j2	log4j—api	2.14.1
		log4j2	log4j —slf4j —impl	2.14.1
		slf4j	slf4j—api	1.7.30
		slf4j	jcl —over —slf4j	1.7.30
		log4jdbc	log4jdbc —log4j2 —jdbc4	1.16
	Testing	jUnit	junit	4.13
		hamcrest	hamcrest —library	1.3
		Spring—test	spring—test	4.3.30
		Json path	json—path	2.5.0
		mockito	mockito—core	3.9.0
	JSON	faster—xml jackson	jackson —core	2.13.0
			jackson —databind	2.13.0
			jackson —annotations	2.13.0
	REST Testing	swagger	springfox —swagger2	2.9.2
			springfox —swagger —ui	2.9.2
			springfox —data —rest	2.9.2
	File Upload	apache commoms fileupload	commons —fileupload	1.4
		apache commoms io	commons —io	2.7
		image library	thumbnailator	0.4.12

	Utility	lombok	lombok	1.8.22
Front	javascript/webjars	jQuery	jquery	3.6.0
		bootstrap	bootstrap	4.6.1