

1.2.1 Build Tools

/2.0 Conventions/2.2 Development Environment/1.2.1 Build Tools

Required Build Tools

1. Maven
2. Eclipse
3. Visual Code
4. GitHub
5. Jenkins CI
6. Admitto Unum Artifact Repository

Static Code Analysis

This project will utilize the following automated analysis tools:

1. Code Formatting - formatting java source code using the Eclipse code formatter
2. CheckStyle - automates the process of checking Java code
3. SonarLint and SonarQube - identifies and helps you fix quality and security issues
4. OWASP Dependency Checking - attempts to detect publicly disclosed vulnerabilities contained within a project's dependencies

Maven Plugins

All Java artifacts will implement the following Maven build plugins and reporting.

1. Code Formatting.

Use the maven build plugin [formatter-maven-plugin](#) configured to use **JavaLambdaFormat** style. This style configuration is provided by the **admitone:code-quality-config** resource plugin.

Standard setup for formatting code is

```
<!-- Automatically reformat source code to Java Lambda Format -->
<plugin>
  <groupId>net.revelc.code.formatter</groupId>
  <artifactId>formatter-maven-plugin</artifactId>
  <version>2.18.0</version>
  <executions>
    <execution>
      <goals>
        <goal>format</goal>
      </goals>
      <configuration>
        <configFile>eclipse/JavaLambdaFormat.xml</configFile>
      </configuration>
    </execution>
  </executions>
</plugin>
```

```

        </execution>
    </executions>
    <configuration>
        <encoding>UTF-8</encoding>
        <excludes>
            <exclude>**/*Test.java</exclude>
            <exclude>**/*_Spec.java</exclude>
        </excludes>
    </configuration>
    <dependencies>
        <dependency>
            <groupId>admitone</groupId>
            <artifactId>code-quality-config</artifactId>
            <version>LATEST</version>
        </dependency>
    </dependencies>
</plugin>

```

2. Setting up Checkstyle

[Checkstyle](#) will help educate and enforce our coding standards. You can set up your IDE to use Checkstyle to examine code for conformance to the standards. Learn more about the checks or Google the error message to find out why it complains about certain things.

```

<!-- Verify code matches the AdmitOne Rout66 Java Lambda Function
Requirements-->
<plugin>
    <groupId>org.apache.maven.plugins</groupId>
    <artifactId>maven-checkstyle-plugin</artifactId>
    <version>3.1.2</version>
    <configuration>
        <configLocation>checkstyle.xml</configLocation>
    </configuration>
    <dependencies>
        <dependency>
            <groupId>com.puppcrawl.tools</groupId>
            <artifactId>checkstyle</artifactId>
            <version>10.0</version>
        </dependency>

        <dependency>
            <groupId>admitone</groupId>
            <artifactId>code-quality-config</artifactId>
            <version>LATEST</version>
        </dependency>
    </dependencies>
</plugin>

```

3. SonarLint and SonarQube with SonarSannar

Execute the [SonarLint](#) and SonarQube analysis via a regular Maven [SonarScanner](#).

TODO: add setup here

4. OWASP Dependency Checking

TODO_: add setup here

[OWASP Dependency-Check](#)

Eclipse

TODO

Jenkins

URL - <http://admitone.ci:50080/jenkins/>

AdmitOne Repository

TODO:

URL - <http://admitone.repo:52180/>