### CS 305 Module Two Coding Assignment - Dependency-Check Maven Integration Review

### Run Dependency Check

Issue:

I followed the tutorial step-by-step to integrate the OWASP Dependency-Check Maven plugin into my pom.xml file, intending to run a vulnerability scan on my Spring Boot project. After adding the correct plugin configuration and setting the plugin version to 9.0.7, I executed the Maven build. However, the build failed with multiple errors, including unresolved dependencies and Java version conflicts. As a result, I could not execute the Dependency-Check plugin correctly.

Challenges:

* Maven was unable to resolve dependencies, preventing the plugin from running.
* Errors persisted even after clearing the Maven cache using mvn clean install -U.
* Despite following the tutorial, I was unable to generate the expected dependency-check-report.html.

Questions I Have:

* Could there be something in the plugin configuration that I missed?
* Is there a specific structure needed within the pom.xml to ensure the plugin integrates correctly with Spring Boot?

### Document Results

Issue:

Due to the unresolved dependency issues and the failure of the plugin to execute properly, I was unable to generate the dependency-check-report.html file as required. This prevented me from documenting the results in the Module Two Coding Assignment Template.

Challenges:

* I could not provide a screenshot of the HTML report since it was not generated.
* The Maven build failed multiple times before the plugin could run, making it impossible to document the results as instructed in the assignment.

Questions I Have:

* Could the plugin version (9.0.7) be the cause of the failure?
* Could the plugin be conflicting with other Spring Boot dependencies like spring-boot-starter-web or spring-boot-starter-test?

### Analyze Results

Issue:

Since the dependency-check-report.html was not generated, I could not proceed with analyzing the results. The plugin did not execute properly due to unresolved dependencies and Java version conflicts. As a result, I couldn’t analyze the dependency results or recommend mitigation solutions.

Challenges:

* Without the report, I was unable to analyze the results to identify vulnerabilities in the dependencies.
* The failure of the plugin to run and the lack of generated output left me unable to complete the analysis section of the assignment.

Questions I Have:

* Should I downgrade to Java 8 to avoid the Java compatibility issue, or is Java 11 required for the OWASP Dependency-Check plugin?
* What specific version of Java should I be using for compatibility with the plugin?
* Should I try downgrading the plugin to 9.0.7, or is it better to continue troubleshooting with the latest plugin version (12.0.1)?

### Challenges Encountered:

1. Java Version Compatibility:

I faced significant issues with Java version compatibility. The plugin was not resolving correctly with Java 11, and after trying both Java 8 and Java 11, I could not resolve the errors. This mismatch between the required Java version and the versions available caused the plugin to fail.

1. Maven Dependency Resolution:

Dependency resolution issues were persistent, particularly with Spring HATEOAS and Spring Data REST, which Maven could not resolve. This might have been caused by missing repositories or dependency version conflicts.

1. Plugin Configuration and Execution:

Despite following the tutorial and ensuring the correct plugin configuration, I could not get the OWASP Dependency-Check plugin to execute. The Maven build kept failing before the plugin could run, and I was unable to generate the dependency-check-report.html file.

1. Failed Dependency Check Report:

The dependency-check-report.html was not generated, which prevented me from documenting the findings and analyzing the results as required in the assignment.

### Request for Guidance and Additional Resources:

1. Additional Time:

I would appreciate an extension to resolve the issues with the Dependency-Check plugin. The dependency resolution problems and Java compatibility errors have delayed my progress, and I am very close to resolving these issues. More time would allow me to get the report generated and complete the assignment as required.

1. Help and Resources:
   1. Could you point me in the right direction for resolving these dependency issues and the Java compatibility problem?
   2. Are there any additional resources or tutorials I might have missed that could assist me in resolving the issues more efficiently?
   3. I reviewed the official OWASP Dependency-Check Maven Plugin documentation at <https://jeremylong.github.io/DependencyCheck/dependency-check-maven/index.html> and followed the tutorial, but I still encountered unresolved issues.
2. Clarification on Version Compatibility:
   1. I’ve tried JDK 8, JDK 11, and JDK 23 (which is installed by default in Eclipse), but each version seems to create different issues. Could you clarify which Java version would work best for the OWASP Dependency-Check plugin?
   2. Should I downgrade the plugin version to 9.0.7 to see if that resolves the issues, or should I continue troubleshooting with the latest plugin version (12.0.1)?

### Final Thoughts:

While I have followed the tutorial carefully, I encountered several challenges related to Maven dependency resolution, Java version compatibility, and plugin configuration. I am very close to resolving the issues and generating the required report, but I need more time to complete this task effectively.

I hope this review provides insight into the steps I have taken, the challenges I have encountered, and the obstacles preventing the successful generation of the report. Any additional resources, guidance, or assistance would be greatly appreciated.

Thank you for your understanding and assistance.