

Summary Report Iteration 3

Setup : JarFiles Executed Successfully

```
C:\Users\pc\api-java>java -jar target/crud-api-microservice-0.0.1-SNAPSHOT.jar

:: Spring Boot ::
(v2.6.3)

2023-12-03 22:41:00.102 INFO 5312 --- [main] com.example.crudapi.CrudApiApplication : Starting CrudApiApplication v0.0.1-SNAPSHOT using Java 20 on DESKTOP-C7UUV6 with PID 5312 (C:\Users\pc\api-jav
a\target\crud-api-microservice-0.0.1-SNAPSHOT.jar
2023-12-03 22:41:00.107 INFO 5312 --- [main] com.example.crudapi.CrudApiApplication : No active profile set, falling back to default profiles: default
2023-12-03 22:41:01.613 INFO 5312 --- [main] .s.d.r.c.RepositoryConfigurationDelegate : Bootstrapping Spring Data JPA repositories in DEFAULT mode.
2023-12-03 22:41:01.754 INFO 5312 --- [main] .s.d.r.c.RepositoryConfigurationDelegate : Finished Spring Data repository scanning in 122 ms. Found 1 JPA repository interfaces.
2023-12-03 22:41:03.313 INFO 5312 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port(s): 8080 (http)
2023-12-03 22:41:03.334 INFO 5312 --- [main] o.apache.catalina.core.StandardService : Starting service [Tomcat]
2023-12-03 22:41:03.334 INFO 5312 --- [main] org.apache.catalina.core.StandardEngine : Starting Servlet engine: [Apache Tomcat/9.0.56]
2023-12-03 22:41:03.454 INFO 5312 --- [main] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationContext
2023-12-03 22:41:03.454 INFO 5312 --- [main] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext: initialization completed in 3205 ms
2023-12-03 22:41:03.787 INFO 5312 --- [main] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Starting...
2023-12-03 22:41:04.256 INFO 5312 --- [main] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Start completed.
2023-12-03 22:41:04.421 INFO 5312 --- [main] o.hibernate.jpa.internal.util.LogHelper : HHH000204: Processing PersistenceUnitInfo [name: default]
2023-12-03 22:41:04.571 INFO 5312 --- [main] org.hibernate.Version : HHH000412: Hibernate ORM core version 5.6.4.Final
2023-12-03 22:41:04.951 INFO 5312 --- [main] o.hibernate.annotations.common.Version : HCA000000: Hibernate Commons Annotations [5.1.2.Final]
2023-12-03 22:41:05.363 INFO 5312 --- [main] org.hibernate.dialect.Dialect : HHH000400: Using dialect: org.hibernate.dialect.H2Dialect
2023-12-03 22:41:06.693 INFO 5312 --- [main] o.h.e.t.j.p.i.JtaPlatformInitiator : HHH000490: Using JtaPlatform implementation: [org.hibernate.engine.transaction.jta.platform.internal.NoJtaPlatf
orm]
2023-12-03 22:41:06.714 INFO 5312 --- [main] j.LocalContainerEntityManagerFactoryBean : Initialized JPA EntityManagerFactory for persistence unit 'default'
2023-12-03 22:41:07.495 WARN 5312 --- [main] JpaBaseConfiguration$JpaWebConfiguration : spring.jpa.open-in-view is enabled by default. Therefore, database queries may be performed during view renderi
ng. Explicitly configure spring.jpa.open-in-view to disable this warning
2023-12-03 22:41:08.397 INFO 5312 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port(s): 8080 (http) with context path ''
2023-12-03 22:41:08.417 INFO 5312 --- [main] com.example.crudapi.CrudApiApplication : Started CrudApiApplication in 9.561 seconds (JVM running for 10.49)
2023-12-03 22:42:06.522 INFO 5312 --- [io-8080-exec-56] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring DispatcherServlet 'dispatcherServlet'
2023-12-03 22:42:06.524 INFO 5312 --- [io-8080-exec-56] o.s.web.servlet.DispatcherServlet : Initializing Servlet 'dispatcherServlet'
2023-12-03 22:42:06.530 INFO 5312 --- [io-8080-exec-56] o.s.web.servlet.DispatcherServlet : Completed initialization in 4 ms
```

• Task 1:

Adding checkStyle and SAST scanner in the clone repository for checkStyle a file named checkstyle.xml is created in the root of the project and is runned through **mvn checkstyle:check** which show the violations in our code about the indentation, white spaces and variable name

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.22631.2715]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Malaika Tariq\git\api-java>mvn checkstyle:check
[INFO] Scanning for projects...
[INFO] -----< com.example:crud-api-microservice >-----
[INFO] Building crud-api-microservice 0.0.1-SNAPSHOT
[INFO]    from pom.xml
[INFO] -----[ jar ]-----
[INFO] --- checkstyle:3.1.1:check (default-cli) @ crud-api-microservice ---
[INFO] You have 0 Checkstyle violations.
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time:  1.355 s
[INFO] Finished at: 2023-12-03T22:34:59+05:00
[INFO] -----

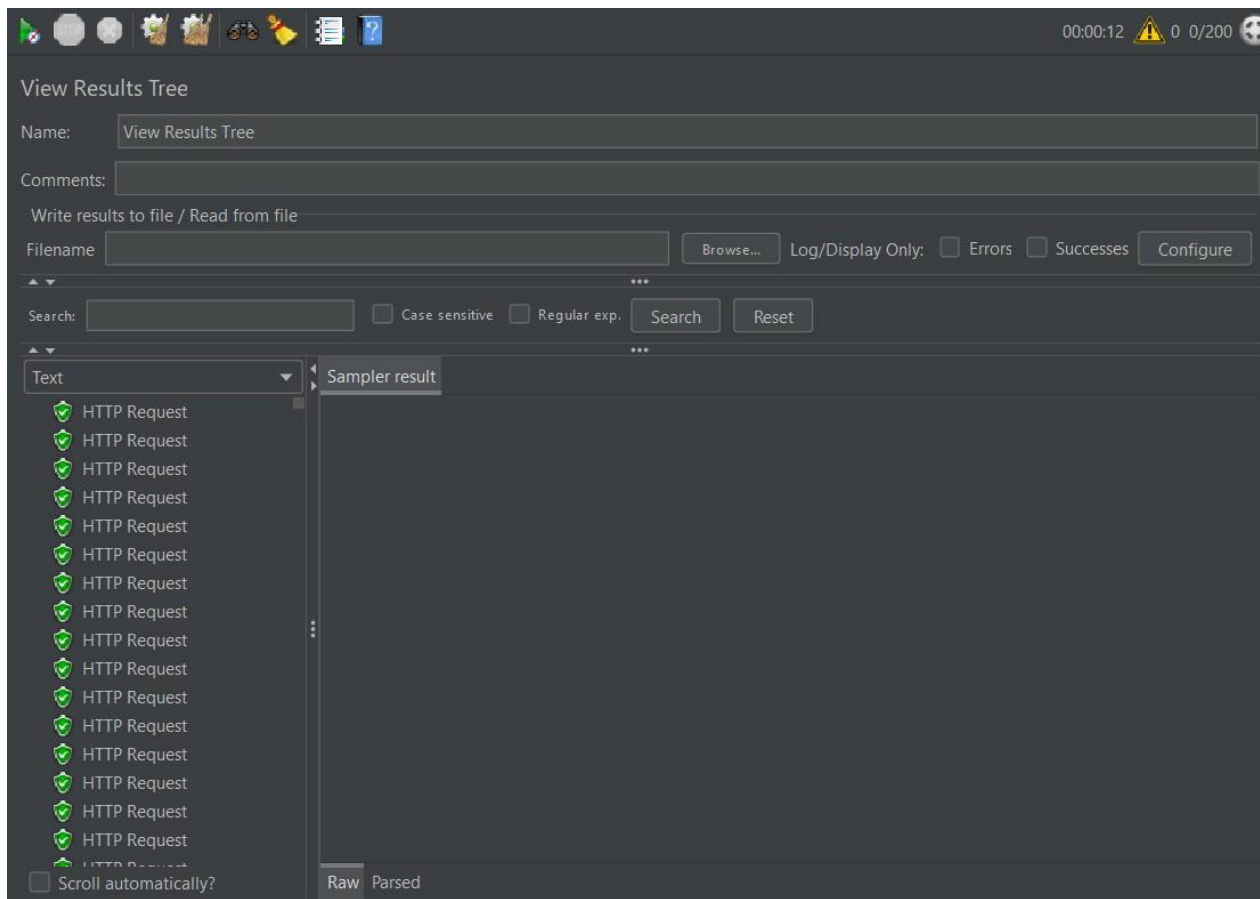
C:\Users\Malaika Tariq\git\api-java>
```

for SAST(semgrep) a .semgrep.yaml file is created in the root of the project and plugin is added in pom.xml file

- **Task 2 Working Screenshots**

- View Result Tree :-

Showing that 200 requests are sent to Local host and all of them are passed and Positive HTTP Request shows Successful execution



- **Summary Report:-**

It shows the Average , Minimum ,Maximum, Error%, and Average bytes

Summary Report

Name:

Summary Report

Comments:

Write results to file / Read from file

Filename

Browse...

Log/Display Only:

Errors

Successes

Configure

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received K...	Sent KB/sec	Avg. Bytes
HTTP Reque...	8000	254	0	7482	625.37	0.00%	643.3/sec	109.31	76.01	174.0
TOTAL	8000	254	0	7482	625.37	0.00%	643.3/sec	109.31	76.01	174.0





- **Graph Results :-**

This shows the graph result of the Requests to the Local Host to test the

performance and Below is the Performance Testing Graph



• **Task 3 :-**

 Developer_Guidl...	3,415	1,516	MD File	03/12/2023 9:4...	13B6CC31
 Performance_Re...	494	296	MD File	03/12/2023 6:5...	7AE52F0C
 Reliability_Requi...	650	400	MD File	03/12/2023 6:5...	7402E77F
 Security_Require...	839	502	MD File	03/12/2023 7:0...	38F6C89F

covering performance, reliability, security, and developer guidelines. The performance requirements included metrics such as response time, throughput, scalability, resource utilization, and data transfer rate. Reliability requirements focused on availability, fault tolerance, recovery time, data integrity, and redundancy. Security requirements emphasized secure authentication, authorization, and protection against injection attacks, referencing industry standards and OWASP guidelines. The developer

guidelines covered coding standards, version control, documentation, code review, and unit testing, citing recognized standards and best practices in software development. Additionally, we provided references for each set of requirements to ensure reliability and security in the development process.