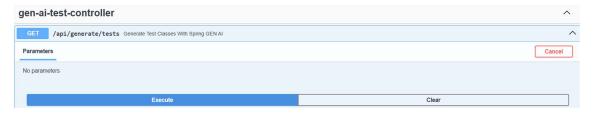
Automating Test Cases by OpenAl Integration

Objective - During multi-project Migrations or new Projects including Hundreds of Test Classes and Test cases, writing test cases manually even through tools like chat GPT/Copilot can become challenging. This is a POC showcasing that this can be achieved in a much quicker manner by implementing automation through gen-AI saving a lot of developer effort, especially for Migration Projects where timelines are essential for customers.

An Endpoint has been created /api/generate/tests



2. A sample service class was created to provide an input to the API.

```
package com.kitchensink.user.ai;

public class SampleService {
    public String concatenate(String str1, String str2) {
        return str1 + str2;
    }
}
```

3. A sample service class was created to provide an input to the API.

```
package com.kitchensink.user.ai;
     # com.kitchensink.user.utils
                                                                                                                                                                                                                           import static org.junit.jupiter.api.Assertions.assertEquals;

₱ src/test/java

→ ⊕ com.kitchensink

■ src/test/java

→ ⊕ com.kitchensink

■ com.ki
                                                                                                                                                                                                                          import org.junit.jupiter.api.Test;
import org.junit.jupiter.api.extension.ExtendWith;
            SampleServiceTest.java
    > # com.kitchensink.user.controller
> # com.kitchensink.user.service
                                                                                                                                                                                                                              import org.mockito.InjectMocks;
                                                                                                                                                                                                                     8 import org.mockito.junit.jupiter.MockitoExtension;
 # target/generated-test-sources/test-annotations
                                                                                                                                                                                                           10 @ExtendWith(MockitoExtension.class)
 ➢ logs
                                                                                                                                                                                                               11 public class SampleServiceTest {
 € src
  commands
                                                                                                                                                                                                                                               private SampleService sampleService;
 docker-compose.yaml
                                                                                                                                                                                                                                               public void testConcatenate() {
 HELP.md
                                                                                                                                                                                                                                                                String str1 = "Hello";
String str2 = "World";
String result = sampleService.concatenate(str1, str2);
assertEquals("HelloWorld", result);
 & kitchensink-HLD.pdf
 mvnw.cmd
```

Result – The corresponding package is automatically created, and a Test class is generated at the desired location. The API can further be improved to provide custom input parameters to give more control to the developer who needs to generate the test cases.