**CTS – DIGITAL NUTURE – 4.0 - DEEPSKILLING PROGRAM**

**WEEK – 2**

**Exercise 1: Logging Error Messages and Warning Levels**

Task: Write a Java application that demonstrates logging error messages and warning levels using SLF4J.

Solution Code:

**package** com.cts.LoggingWithSLF4J;

**import** org.slf4j.Logger;

**import** org.slf4j.LoggerFactory;

**public** **class** LoggingExample

{

**private** **static** **final** Logger ***logger*** = LoggerFactory.*getLogger*(LoggingExample.**class**);

**public** **static** **void** main(String[] args) {

***logger***.error("This is an error message");

***logger***.warn("This is a warning message");

}

}

**pom.xml**

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**Exercise 1: Mocking and Stubbing**

***Code:***

**package** com.cts.Mockito;

**public** **interface** ExternalAPI {

String getData();

}

**package** com.cts.Mockito;

**public** **class** MyService {

**private** ExternalAPI api;

**public** MyService(ExternalAPI api) {

**this**.api = api;

}

**public** String fetchData() {

**return** api.getData();

}

}

**MyServiceTest.java :**

**package** com.cts.Mockito;

**import** org.junit.jupiter.api.Test;

**import** **static** org.junit.jupiter.api.Assertions.*assertEquals*;

**import** **static** org.mockito.Mockito.\*;

**public** **class** MyServiceTest {

@Test

**public** **void** testExternalApi() {

// Step 1: Create mock

ExternalAPI mockApi = *mock*(ExternalAPI.**class**);

// Step 2: Stub method

*when*(mockApi.getData()).thenReturn("Mock Data");

MyService service = **new** MyService(mockApi);

String result = service.fetchData();

System.***out***.println("Fetched result from mock: " + result);

// Assert

*assertEquals*("Mock Data", result);

}

}

**Output:**

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