**Exercise 7:** Handling Void Methods with Exceptions

**Scenario:** You need to test a void method that throws an exception.

**Ex7VoidExceptionApi.java**

package demo;

public interface Ex7VoidExceptionApi {

    void deleteData(String id);

}

**Ex7VoidExceptionService.java**

package demo;

public class Ex7VoidExceptionService {

    private Ex7VoidExceptionApi api;

    public Ex7VoidExceptionService(Ex7VoidExceptionApi api) {

        this.api = api;

    }

    public void removeData(String id) {

        api.deleteData(id);

    }

}

**Ex7VoidExceptionServiceTest.java**

package demo;

import org.junit.jupiter.api.Test;

import static org.mockito.Mockito.\*;

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

public class Ex7VoidExceptionServiceTest {

    @Test

    public void testVoidMethodThrowsException() {

        Ex7VoidExceptionApi mockApi = mock(Ex7VoidExceptionApi.class);

        doThrow(new RuntimeException("Deletion failed"))

                .when(mockApi).deleteData(anyString());

        Ex7VoidExceptionService service = new Ex7VoidExceptionService(mockApi);

        Exception exception = assertThrows(RuntimeException.class, () -> {

            service.removeData("123");

        });

        assertEquals("Deletion failed", exception.getMessage());

        verify(mockApi).deleteData("123");

    }

}

**pom.xml**

<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 https://maven.apache.org/xsd/maven-4.0.0.xsd">

  <modelVersion>4.0.0</modelVersion>

  <groupId>com.example</groupId>

  <artifactId>demo</artifactId>

  <version>0.0.1-SNAPSHOT</version>

  <name>Ex1\_Mocking\_Stubbing</name>

  <properties>

        <maven.compiler.source>17</maven.compiler.source> <!-- Java version -->

        <maven.compiler.target>17</maven.compiler.target>

        <junit.jupiter.version>5.10.0</junit.jupiter.version>

        <mockito.version>5.8.0</mockito.version>

        <bytebuddy.version>1.14.14</bytebuddy.version>

    </properties>

    <dependencies>

        <!-- JUnit 5 -->

        <dependency>

            <groupId>org.junit.jupiter</groupId>

            <artifactId>junit-jupiter</artifactId>

            <version>${junit.jupiter.version}</version>

            <scope>test</scope>

        </dependency>

        <!-- Mockito Core -->

        <dependency>

            <groupId>org.mockito</groupId>

            <artifactId>mockito-core</artifactId>

            <version>${mockito.version}</version>

            <scope>test</scope>

        </dependency>

        <!-- Mockito JUnit Jupiter Integration -->

        <dependency>

            <groupId>org.mockito</groupId>

            <artifactId>mockito-junit-jupiter</artifactId>

            <version>${mockito.version}</version>

            <scope>test</scope>

        </dependency>

        <!-- Byte Buddy -->

        <dependency>

            <groupId>net.bytebuddy</groupId>

            <artifactId>byte-buddy</artifactId>

            <version>${bytebuddy.version}</version>

            <scope>test</scope>

        </dependency>

        <!-- Byte Buddy Agent -->

        <dependency>

            <groupId>net.bytebuddy</groupId>

            <artifactId>byte-buddy-agent</artifactId>

            <version>${bytebuddy.version}</version>

            <scope>test</scope>

        </dependency>

        <!-- AssertJ for fluent assertions -->

        <dependency>

            <groupId>org.assertj</groupId>

            <artifactId>assertj-core</artifactId>

            <version>3.24.2</version>

            <scope>test</scope>

        </dependency>

        <!-- Hamcrest for matchers -->

        <dependency>

            <groupId>org.hamcrest</groupId>

            <artifactId>hamcrest-library</artifactId>

            <version>2.2</version>

            <scope>test</scope>

        </dependency>

    </dependencies>

    <build>

        <plugins>

            <!-- Maven Surefire Plugin for running tests -->

            <plugin>

                <groupId>org.apache.maven.plugins</groupId>

                <artifactId>maven-surefire-plugin</artifactId>

                <version>3.1.2</version>

                <configuration>

                <argLine>-Dnet.bytebuddy.experimental=true</argLine>

            </configuration>

            </plugin>

        </plugins>

    </build>

</project>

**Output:**

