## Java class

**package** com.example.authentication;

**import** java.util.regex.Pattern;

**public** **class** UserAuthentication

{

**public** **static** **boolean** patternMatches(String emailAddress, String regexPattern)

{

**return** Pattern.*compile*(regexPattern)

.matcher(emailAddress)

.matches();

}

**public** **static** **boolean** passwordMatches(String passwordMat, String regexPatterns) {

**return** Pattern.*compile*(regexPatterns)

.matcher(passwordMat)

.matches();

}

}

## TestCase

package com.example.authentication;

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

import org.junit.jupiter.api.Test;

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

import com.example.authentication.UserAuthentication;

import org.junit.jupiter.api.AfterEach;

import org.junit.jupiter.api.BeforeEach;

class AuthenticationTestDemo

{

private UserAuthentication obj;

@BeforeEach

public void setup() {

obj= new UserAuthentication();

System.out.println("USER Initiated");

}

@AfterEach

public void tearDown()

{

obj=null;

System.out.println("USER Closed");

}

@Test

public void testUsingStrictRegex()

{

String emailAddress = "Kavi@gmail.com";

String regexPattern = "^(?=.{1,64}@)[A-Za-z0-9\_-]+(\\.[A-Za-z0-9\_-]+)\*@"

+ "[^-][A-Za-z0-9-]+(\\.[A-Za-z0-9-]+)\*(\\.[A-Za-z]{2,})$";

assertTrue(UserAuthentication.patternMatches(emailAddress, regexPattern));

}

@Test

public void testUsingPasswordStrictRegex()

{

String passwordMat = "asdf1234";

String regexPatterns = "^(?=.\*\\d).{4,8}$";

assertTrue(UserAuthentication.passwordMatches(passwordMat, regexPatterns));

}

}

## 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 http://maven.apache.org/xsd/maven-4.0.0.xsd">

<modelVersion>4.0.0</modelVersion>

<groupId>com.example.demo</groupId>

<artifactId>JUNITSampleTest</artifactId>

<version>0.0.1-SNAPSHOT</version>

<packaging>jar</packaging>

<name>JUNITSampleTest</name>

<url>http://maven.apache.org</url>

<properties>

<project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>

</properties>

<dependencies>

<dependency>

<groupId>junit</groupId>

<artifactId>junit</artifactId>

<version>3.8.1</version>

<scope>test</scope>

</dependency>

<!--Junit Jupiter API-->

<dependency>

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

<artifactId>junit-jupiter-api</artifactId>

<version>5.9.0</version>

<scope>test</scope>

</dependency>

</dependencies>

<!--maven compiler plugin-->

<!--link: https://maven.apache.org/plugins/maven-compiler-plugin/examples/set-compiler-source-and-target.html-->

<build>

<plugins>

<plugin>

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

<artifactId>maven-compiler-plugin</artifactId>

<version>3.10.1</version>

<configuration>

<source>1.8</source>

<target>1.8</target>

</configuration>

</plugin>

</plugins>

</build>

</project>