# T 8 : TO DEPICT appium + selenium for mobile testing

## **Tests.java**

**import** **static** org.testng.Assert.*assertEquals*;

**import** java.net.MalformedURLException;

**import** java.net.URL;

**import** java.time.Duration;

**import** java.util.List;

**import** java.util.concurrent.TimeUnit;

**import** org.openqa.selenium.By;

**import** org.openqa.selenium.Dimension;

**import** org.openqa.selenium.NoSuchElementException;

**import** org.openqa.selenium.remote.DesiredCapabilities;

**import** org.testng.annotations.BeforeTest;

**import** org.testng.annotations.Test;

**import** io.appium.java\_client.AppiumDriver;

**import** io.appium.java\_client.MobileElement;

**import** io.appium.java\_client.PerformsTouchActions;

**import** io.appium.java\_client.TouchAction;

**import** io.appium.java\_client.android.AndroidDriver;

**import** io.appium.java\_client.touch.WaitOptions;

**import** io.appium.java\_client.touch.offset.PointOption;

**public** **class** Tests {

**public** **static** AppiumDriver<MobileElement> *driver*;

@BeforeTest

**public** **void** before() **throws** MalformedURLException {

DesiredCapabilities cap = **new** DesiredCapabilities();

cap.setCapability("deviceName", "POCO");

cap.setCapability("udid", "b3dad95f");

cap.setCapability("platformName", "Android");

cap.setCapability("platformVersion", "11");

cap.setCapability("appPackage", "io.selendroid.testapp");

cap.setCapability("appActivity", "io.selendroid.testapp.HomeScreenActivity");

cap.setCapability("noReset", "true");

cap.setCapability("autoGrantPermissions", "true");

cap.setCapability("autoAcceptAlerts", "true");

String u = "http://127.0.0.1:4723/wd/hub";

URL url = **new** URL(u);

*driver* = **new** AndroidDriver<MobileElement>(url, cap);

}

@Test

**public** **static** **void** Test1() **throws** InterruptedException {

System.***out***.println("App Loading.......");

TimeUnit.***SECONDS***.sleep(2);

System.***out***.println("\n\nApp-Name :" + *driver*.findElement(By.*id*("android:id/title")).getText() + "\n\n"

+ *driver*.findElement(By.*xpath*(

"/hierarchy/android.widget.FrameLayout/android.widget.LinearLayout/android.widget.FrameLayout[2]/android.widget.LinearLayout/android.widget.TextView[1]"))

.getText()

+ "\n");

*driver*.findElement(By.*id*("io.selendroid.testapp:id/topLevelElementTest")).click();

TimeUnit.***SECONDS***.sleep(1);

MobileElement t = *driver*.findElement(By.*id*("io.selendroid.testapp:id/focusedText"));

**if** (t.getText().contains("Should only be found once")) {

System.***out***.println(*driver*.findElement(By.*id*("io.selendroid.testapp:id/topLevelElementTest")).getText()

+ " button pressed\n");

}

}

@Test

**public** **static** **void** Test2() **throws** InterruptedException {

TimeUnit.***SECONDS***.sleep(2);

MobileElement t = *driver*.findElement(By.*id*("io.selendroid.testapp:id/input\_adds\_check\_box"));

TimeUnit.***SECONDS***.sleep(1);

**if** (t.getAttribute("checked").equals("true")) {

System.***out***.println("checkbox[checked]");

}

TimeUnit.***SECONDS***.sleep(1);

t.click();

**if** (!t.getAttribute("checked").equals("true")) {

System.***out***.println("checkbox[unchecked]\n");

}

}

@Test

**public** **static** **void** Test3() **throws** InterruptedException {

TimeUnit.***SECONDS***.sleep(2);

MobileElement t = *driver*.findElement(By.*id*("io.selendroid.testapp:id/showToastButton"));

t.click();

TimeUnit.***MILLISECONDS***.sleep(2500);

MobileElement toast = *driver*.findElementByXPath("//android.widget.Toast[@text='Hello selendroid toast!']");

**if** (toast.getText().contentEquals("Hello selendroid toast!")) {

System.***out***.println("Toast [" + toast.getText() + "] successfully displayed");

}

TimeUnit.***SECONDS***.sleep(2);

*driver*.findElement(By.*id*("io.selendroid.testapp:id/showPopupWindowButton")).click();

System.***out***.println("pop-up opened");

TimeUnit.***SECONDS***.sleep(3);

TouchAction touchAction = **new** TouchAction(*driver*);

touchAction.tap(PointOption.*point*(490, 1050)).perform();

System.***out***.println("pop-up closed");

TimeUnit.***SECONDS***.sleep(3);

}

@Test

**public** **static** **void** Test4() **throws** InterruptedException {

TimeUnit.***SECONDS***.sleep(3);

**if** (!*isElementPresent*(By.*id*("io.selendroid.testapp:id/visibleTextView"))) {

System.***out***.println("Text is hidden");

}

TimeUnit.***SECONDS***.sleep(3);

*driver*.findElementById("io.selendroid.testapp:id/visibleButtonTest").click();

System.***out***.println(

*driver*.findElementById("io.selendroid.testapp:id/visibleButtonTest").getText() + " button pressed");

**if** (*isElementPresent*(By.*id*("io.selendroid.testapp:id/visibleTextView"))) {

System.***out***.println(

"===> " + "'" + *driver*.findElementById("io.selendroid.testapp:id/visibleTextView").getText() + "'");

}

}

@Test

**public** **static** **void** Test5() **throws** InterruptedException {

*driver*.findElementById("io.selendroid.testapp:id/waitingButtonTest").click();

TimeUnit.***SECONDS***.sleep(3);

MobileElement rr = *driver*.findElementById("android:id/progress\_percent");

**for** (**int** i = 0; i < 3; i++) {

System.***out***.print("==>" + rr.getText());

TimeUnit.***SECONDS***.sleep(3);

}

TimeUnit.***SECONDS***.sleep(2);

System.***out***.print("==>100%");

System.***out***.println("\n\nprogress bar finished..!\n");

System.***out***.println(*driver*.findElementByXPath(

"/hierarchy/android.widget.FrameLayout/android.widget.LinearLayout/android.widget.FrameLayout[2]/android.widget.ScrollView/android.widget.LinearLayout/android.widget.TextView[1]")

.getText());

*driver*.findElementById("io.selendroid.testapp:id/inputUsername").sendKeys("Joe Ben");

*driver*.findElementById("io.selendroid.testapp:id/inputEmail").sendKeys("abcd@gmail.com");

*driver*.findElementById("io.selendroid.testapp:id/inputPassword").sendKeys("@213qwertY");

MobileElement rt = *driver*.findElementById("io.selendroid.testapp:id/input\_preferedProgrammingLanguage");

String[] tt = { "Ruby", "PHP", "Scala", "Python", "Javascript", "Java", "C++", "C#" };

**for** (**int** i = 0; i < tt.length; i++) {

TimeUnit.***SECONDS***.sleep(2);

rt.click();

TimeUnit.***SECONDS***.sleep(1);

*driver*.findElementByXPath("//android.widget.CheckedTextView[@text='" + tt[i] + "']").click();

TimeUnit.***SECONDS***.sleep(4);

**if** (*driver*.findElement(By.*id*("android:id/text1")).getAttribute("text").contentEquals(tt[i])) {

System.***out***.println(*driver*.findElement(By.*id*("android:id/text1")).getAttribute("text") + " is selected");

}

}

TimeUnit.***SECONDS***.sleep(2);

MobileElement check = *driver*.findElement(By.*id*("io.selendroid.testapp:id/input\_adds"));

**if** (!check.getAttribute("checked").equals("true")) {

System.***out***.println("checkbox[unchecked]\n");

TimeUnit.***SECONDS***.sleep(1);

check.click();

}

**if** (check.getAttribute("checked").equals("true")) {

System.***out***.println("checkbox[checked]");

}

TimeUnit.***SECONDS***.sleep(2);

*assertEquals*("Register User (verify)",

*driver*.findElement(By.*id*("io.selendroid.testapp:id/btnRegisterUser")).getAttribute("text"));

TimeUnit.***SECONDS***.sleep(2);

*driver*.findElement(By.*id*("io.selendroid.testapp:id/btnRegisterUser")).click();

}

@Test

**public** **static** **void** Test6() **throws** InterruptedException {

TimeUnit.***SECONDS***.sleep(2);

*assertEquals*("Verify user", *driver*.findElement(By.*xpath*(

"/hierarchy/android.widget.FrameLayout/android.widget.LinearLayout/android.widget.FrameLayout[2]/android.widget.TableLayout/android.widget.TableRow[1]/android.widget.TextView"))

.getAttribute("text"));

*assertEquals*("Mr. Burns", *driver*.findElementById("io.selendroid.testapp:id/label\_name\_data").getAttribute("text"));

*assertEquals*("Joe Ben", *driver*.findElementById("io.selendroid.testapp:id/label\_username\_data").getAttribute("text"));

*assertEquals*("@213qwertY", *driver*.findElementById("io.selendroid.testapp:id/label\_password\_data").getAttribute("text"));

*assertEquals*("abcd@gmail.com", *driver*.findElementById("io.selendroid.testapp:id/label\_email\_data").getAttribute("text"));

*assertEquals*("C#", *driver*.findElementById("io.selendroid.testapp:id/label\_preferedProgrammingLanguage\_data").getAttribute("text"));

*assertEquals*("true", *driver*.findElementById("io.selendroid.testapp:id/label\_acceptAdds\_data").getAttribute("text"));

*assertEquals*("Register User", *driver*.findElementById("io.selendroid.testapp:id/buttonRegisterUser").getAttribute("text"));

*driver*.findElementById("io.selendroid.testapp:id/buttonRegisterUser").click();

}

@Test

**public** **static** **void** Test7() **throws** InterruptedException {

*driver*.findElementById("io.selendroid.testapp:id/buttonStartWebview").click();

TimeUnit.***SECONDS***.sleep(3);

MobileElement text2 = *driver*.findElementByClassName("android.widget.EditText");

MobileElement dp = *driver*.findElementByXPath(

"/hierarchy/android.widget.FrameLayout/android.widget.LinearLayout/android.widget.FrameLayout[2]/android.widget.TableLayout/android.widget.TableRow[4]/android.webkit.WebView/android.webkit.WebView/android.view.View/android.view.View[4]/android.view.View[2]");

text2.clear();

text2.sendKeys("Bolt");

*assertEquals*("Volvo", dp.getAttribute("text"));

dp.click();

TimeUnit.***SECONDS***.sleep(3);

List<MobileElement> t3 = *driver*.findElementsByXPath(

"/hierarchy/android.widget.FrameLayout/android.widget.FrameLayout/android.widget.FrameLayout/android.widget.LinearLayout/android.widget.FrameLayout/android.widget.FrameLayout/android.widget.ListView/android.widget.CheckedTextView");

System.***out***.println(t3.size());

**for** (**int** i = 1; i <= t3.size(); i++) {

TimeUnit.***SECONDS***.sleep(3);

System.***out***.println(*driver*.findElementByXPath(

"/hierarchy/android.widget.FrameLayout/android.widget.FrameLayout/android.widget.FrameLayout/android.widget.LinearLayout/android.widget.FrameLayout/android.widget.FrameLayout/android.widget.ListView/android.widget.CheckedTextView["

+ i + "]")

.getAttribute("text") + " is selected");

*driver*.findElementByXPath(

"/hierarchy/android.widget.FrameLayout/android.widget.FrameLayout/android.widget.FrameLayout/android.widget.LinearLayout/android.widget.FrameLayout/android.widget.FrameLayout/android.widget.ListView/android.widget.CheckedTextView["

+ i + "]")

.click();

TimeUnit.***SECONDS***.sleep(3);

**if** (i == 3) {

**break**;

} **else** {

dp.click();

}

TimeUnit.***SECONDS***.sleep(3);

}

TimeUnit.***SECONDS***.sleep(2);

*driver*.findElementByXPath(

"/hierarchy/android.widget.FrameLayout/android.widget.LinearLayout/android.widget.FrameLayout[2]/android.widget.TableLayout/android.widget.TableRow[4]/android.webkit.WebView/android.webkit.WebView/android.view.View/android.widget.Button")

.click();

TimeUnit.***SECONDS***.sleep(2);

MobileElement e = *driver*.findElement(By.*xpath*(

"/hierarchy/android.widget.FrameLayout/android.widget.LinearLayout/android.widget.FrameLayout[2]/android.widget.TableLayout/android.widget.TableRow[4]/android.webkit.WebView/android.webkit.WebView/android.widget.TextView[4]"));

*assertEquals*("\"Bolt\"", e.getAttribute("text"));

*driver*.findElementByXPath("//android.view.View[@content-desc=\"here\"]/android.widget.TextView").click();

TimeUnit.***SECONDS***.sleep(2);

}

@Test

**public** **static** **void** Test8() **throws** InterruptedException {

*driver*.findElement(By.*id*("io.selendroid.testapp:id/spinner\_webdriver\_test\_data")).click();

TimeUnit.***SECONDS***.sleep(2);

*driver*.findElementByXPath(

"/hierarchy/android.widget.FrameLayout/android.widget.FrameLayout/android.widget.FrameLayout/android.widget.LinearLayout/android.widget.LinearLayout[2]/android.widget.ListView/android.widget.TextView[3]")

.click();

TimeUnit.***SECONDS***.sleep(2);

List<MobileElement>yu=*driver*.findElementsByClassName("android.widget.RadioButton");

**for** (MobileElement mob : yu) {

**if**(mob.isEnabled())

{

mob.click();

System.***out***.println(mob.getAttribute("resource-id")+" is selected");

TimeUnit.***SECONDS***.sleep(2);

}

**else**

{

System.***out***.println(mob.getAttribute("resource-id")+" is disabled");

}

}

*scrollDown*();

*driver*.findElementById("io.selendroid.testapp:id/goBack").click();

TimeUnit.***SECONDS***.sleep(2);

}

@Test

**public** **static** **void** Test9() **throws** InterruptedException {

*driver*.findElement(By.*id*("io.selendroid.testapp:id/buttonTest")).click();

TimeUnit.***SECONDS***.sleep(3);

*driver*.findElement(By.*id*("android:id/button1")).click();

TimeUnit.***SECONDS***.sleep(3);

}

**public** **static** **boolean** isElementPresent(By by) {

**try** {

*driver*.findElement(by);

**return** **true**;

} **catch** (NoSuchElementException e) {

**return** **false**;

}

}

**public** **static** **void** scrollDown(){

Dimension dimension = *driver*.manage().window().getSize();

**int** scrollStart = (**int**) (dimension.getHeight());

**int** scrollEnd = (**int**) (dimension.getHeight() \* 0.5);

**new** TouchAction((PerformsTouchActions) *driver*)

.press(PointOption.*point*(0, scrollStart))

.waitAction(WaitOptions.*waitOptions*(Duration.*ofSeconds*(1)))

.moveTo(PointOption.*point*(0, scrollEnd))

.release().perform();

}

}

## **OUTPUT**

[RemoteTestNG] detected TestNG version 7.4.0

Dec 10, 2021 4:50:28 PM io.appium.java\_client.remote.AppiumCommandExecutor$1 lambda$0

INFO: Detected dialect: W3C

App Loading.......

App-Name :selendroid-test-app

Hello Default Locale, Selendroid-test-app!

Display and focus on layout button pressed

checkbox[checked]

checkbox[unchecked]

Toast [Hello selendroid toast!] successfully displayed

pop-up opened

pop-up closed

Text is hidden

Display text view button pressed

===> 'Text is sometimes displayed'

==>25%==>50%==>75%==>100%

progress bar finished..!

Welcome to register a new User

Ruby is selected

PHP is selected

Scala is selected

Python is selected

Javascript is selected

Java is selected

C++ is selected

C# is selected

checkbox[unchecked]

checkbox[checked]

3

Volvo is selected

Mercedes is selected

Audi is selected

cheese is selected

peas is selected

cheese\_and\_peas is selected

nothing is disabled

randomly\_disabled\_nothing is disabled

lone\_disabled\_selected\_radio is disabled

PASSED: Test9

PASSED: Test6

PASSED: Test4

PASSED: Test5

PASSED: Test3

PASSED: Test7

PASSED: Test1

PASSED: Test2

PASSED: Test8

Default test

Tests run: 9, Failures: 0, Skips: 0

Default suite

Total tests run: 9, Passes: 9, Failures: 0, Skips: 0