

3. Automate any mobile app flow (iOS or Android, any one)

Step 1: pom.xml Dependencies

```
<dependencies>

  <!-- Appium Java Client -->

  <dependency>

    <groupId>io.appium</groupId>

    <artifactId>java-client</artifactId>

    <version>8.5.1</version>

  </dependency>

  <!-- TestNG -->

  <dependency>

    <groupId>org.testng</groupId>

    <artifactId>testng</artifactId>

    <version>7.10.1</version>

    <scope>test</scope>

  </dependency>

</dependencies>
```

Step 2: Java code LoginTest.java

```
import io.appium.java_client.android.AndroidDriver;
import io.appium.java_client.android.options.UiAutomator2Options;
import org.openqa.selenium.By;
import org.openqa.selenium.remote.RemoteWebDriver;
import org.testng.annotations.*;

import java.net.MalformedURLException;
import java.net.URL;
import java.time.Duration;

public class LoginTest {

  private AndroidDriver driver;
```

@BeforeClass

```
public void setup() throws MalformedURLException {  
    UiAutomator2Options options = new UiAutomator2Options()  
        .setDeviceName("Android Emulator") // or your device name  
        .setAppPackage("com.ecommerce.app") // replace with your app's package  
        .setAppActivity("com.ecommerce.app.MainActivity") // replace with your app's main activity  
        .setPlatformName("Android")  
        .setAutomationName("UiAutomator2");  
  
    driver = new AndroidDriver(new URL("http://127.0.0.1:4723/wd/hub"), options);  
    driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));  
}
```

@Test

```
public void testLoginFlow() {  
    // Find and interact with login form  
    driver.findElement(By.id("com.ecommerce.app:id/email")).sendKeys("user@example.com");  
    driver.findElement(By.id("com.ecommerce.app:id/password")).sendKeys("Password123");  
    driver.findElement(By.id("com.ecommerce.app:id/login_button")).click();  
  
    // Assertion - check for home screen element  
    boolean isLoggedIn = driver.findElements(By.id("com.ecommerce.app:id/home_screen")).size() > 0;  
    assert isLoggedIn : "Login failed or home screen not displayed.";  
}
```

@AfterClass

```
public void tearDown() {  
    if (driver != null) {  
        driver.quit();  
    }  
}  
}
```