Bangladesh University of Professionals

An Assignment on-

Mobile Testing and Demonstration

Submitted By-

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Section : A

Department of ICT, BUP

Course Name: Software Testing & Maintenance Laboratory

Submission Date- 15-12-2024

Perform Mobile Testing on the Calculator App

Video link:

https://drive.google.com/file/d/1Wo-cCvrhGdtkyNcQchlEQ_I-1I7zSBq5/view?usp=drivesdk

Code for automation:

```
package TestingAndroid;
import java.net.MalformedURLException;
        import java.net.URL;
        import org.openqa.selenium.By;
        import org.testng.Assert;
        import org.testng.annotations.AfterClass;
        import org.testng.annotations.BeforeClass;
        import org.testng.annotations.Test;
         import io.appium.java_client.AppiumBy;
        import io.appium.java_client.android.AndroidDriver;
        import io.appium.java_client.remote.options.BaseOptions;

        public class testingAndroid {
             public AndroidDriver driver;
           public URL url;
            @BeforeClass
           public void setUp() throws MalformedURLException {
              BaseOptions options = new BaseOptions()
                      .amend("appium:automationName", "UiAutomator2")
                      .amend("appium:platformName", "Android")
                      .amend("appium:platformVersion", "13")
                      .amend("appium:deviceName", "RF8T10XCE0Z ")
                      .amend("appium:newCommandTimeout", "500")
                      .amend("appium:connectHardwareKeyboard", true)
                      .amend("appium:appActivity", "com.sec.android.app.popupcalculator.Calculator")
                      .amend("appium:noReset", true);
```

```
            url = new URL("http://127.0.0.1:4723");
            driver = new AndroidDriver(url, options);
        }
    @Test
 public void sampleTest() {
            // Test Addition

driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_keypad_btn_10")).click()
;

driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_keypad_btn_add")).click
();

driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_keypad_btn_05")).click()
;

driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_keypad_btn_equal")).clic
k();
            String result =
driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_tv_result")).getText();


        // Test Subtraction

driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_keypad_btn_10")).click()
;

driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_keypad_btn_sub")).click(
);

driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_keypad_btn_05")).click()
;

driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_keypad_btn_equal")).clic
k();
            result =
driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_tv_result")).getText();
```

```
        // Test Multiplication

driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_keypad_btn_10")).click()
;

driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_keypad_btn_mul")).click
();

driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_keypad_btn_05")).click()
;

driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_keypad_btn_equal")).clic
k();
                result =
driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_tv_result")).getText();



                // Test Division

driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_keypad_btn_10")).click()
;

driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_keypad_btn_div")).click(
);

driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_keypad_btn_05")).click()
;

driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_keypad_btn_equal")).clic
k();
                result =
driver.findElement(AppiumBy.id("com.sec.android.app.popupcalculator:id/calc_tv_result")).getText();


            }


            @AfterClass
            public void tearDown() {
                if (driver != null) {
```

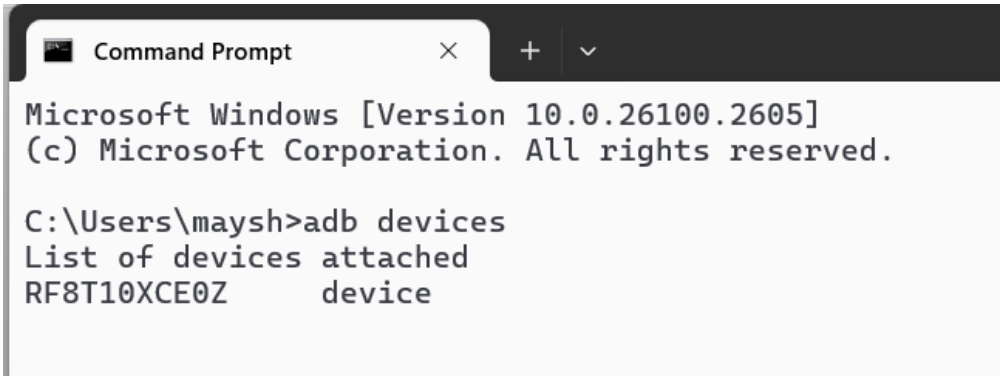
```
            driver.quit();
        }
    }
}
```

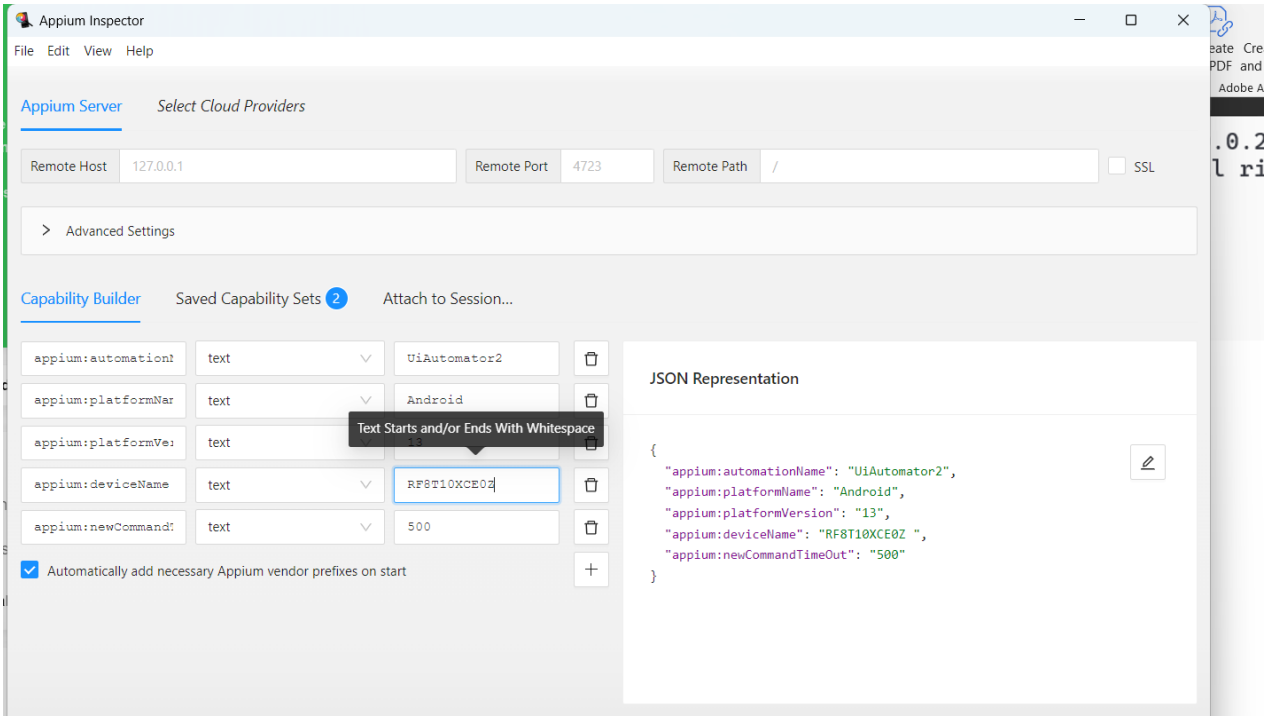
Pom.xml:

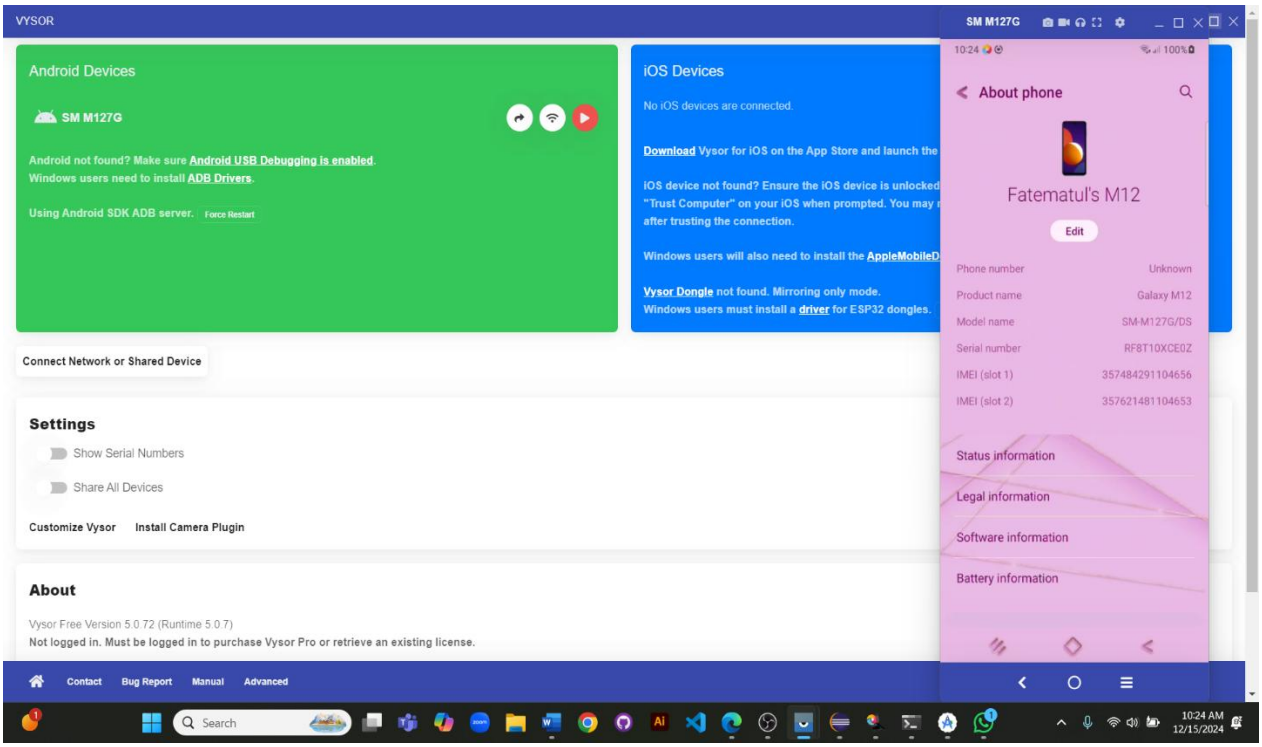
```
<project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
https://maven.apache.org/xsd/maven-4.0.0.xsd">
<modelVersion>4.0.0</modelVersion>
<groupId>appiumTest</groupId>
<artifactId>mobileApp</artifactId>
<version>0.0.1-SNAPSHOT</version>

<dependencies>
<!-- https://mvnrepository.com/artifact/io.appium/java-client -->
<dependency>
<groupId>io.appium</groupId>
<artifactId>java-client</artifactId>
<version>9.3.0</version>
</dependency>
<!-- https://mvnrepository.com/artifact/org.seleniumhq.selenium/selenium-java -->
<dependency>
<groupId>org.seleniumhq.selenium</groupId>
<artifactId>selenium-java</artifactId>
<version>4.26.0</version>
</dependency>
<!-- https://mvnrepository.com/artifact/junit/junit -->
```

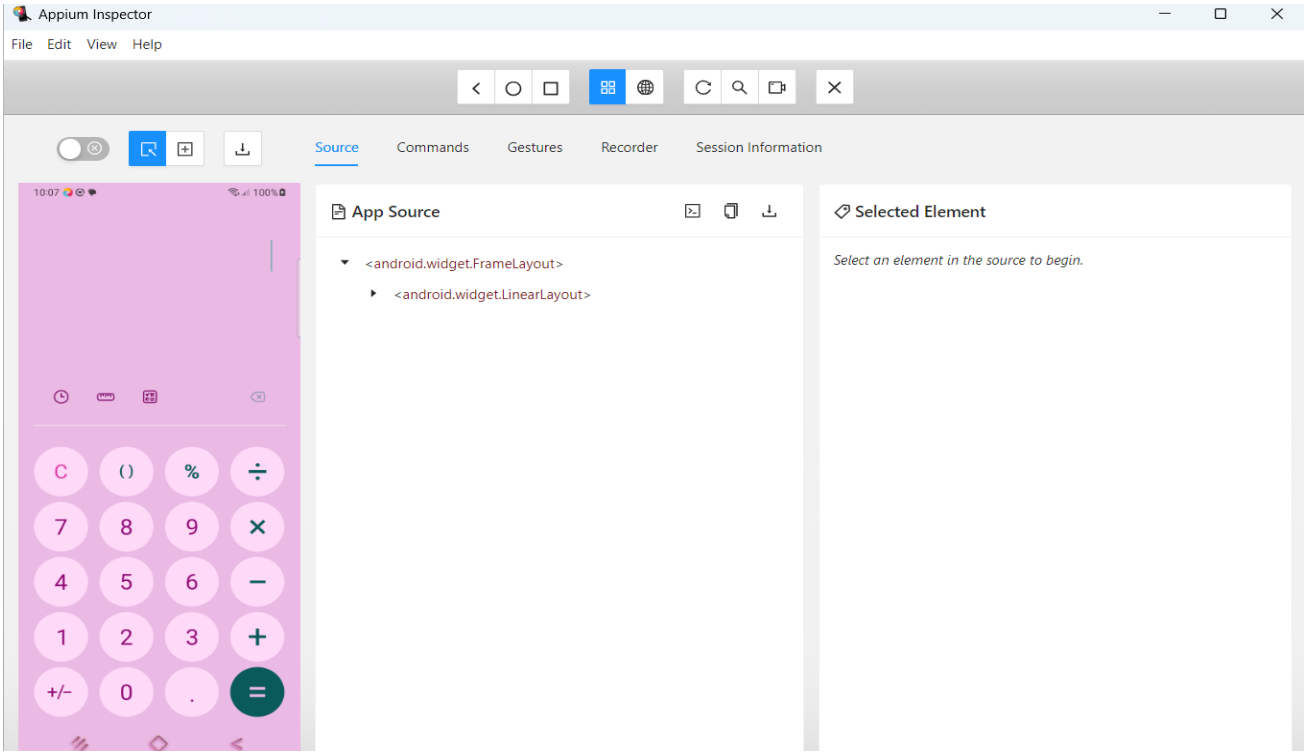
```
<dependency>
<groupId>junit</groupId>
<artifactId>junit</artifactId>
<version>4.13.2</version>
<scope>test</scope>
</dependency>
<!-- https://mvnrepository.com/artifact/org.testng/testng -->
<dependency>
<groupId>org.testng</groupId>
<artifactId>testng</artifactId>
<version>7.10.2</version>
<scope>test</scope>
</dependency>

</dependencies>
</project>
```

Device Information:



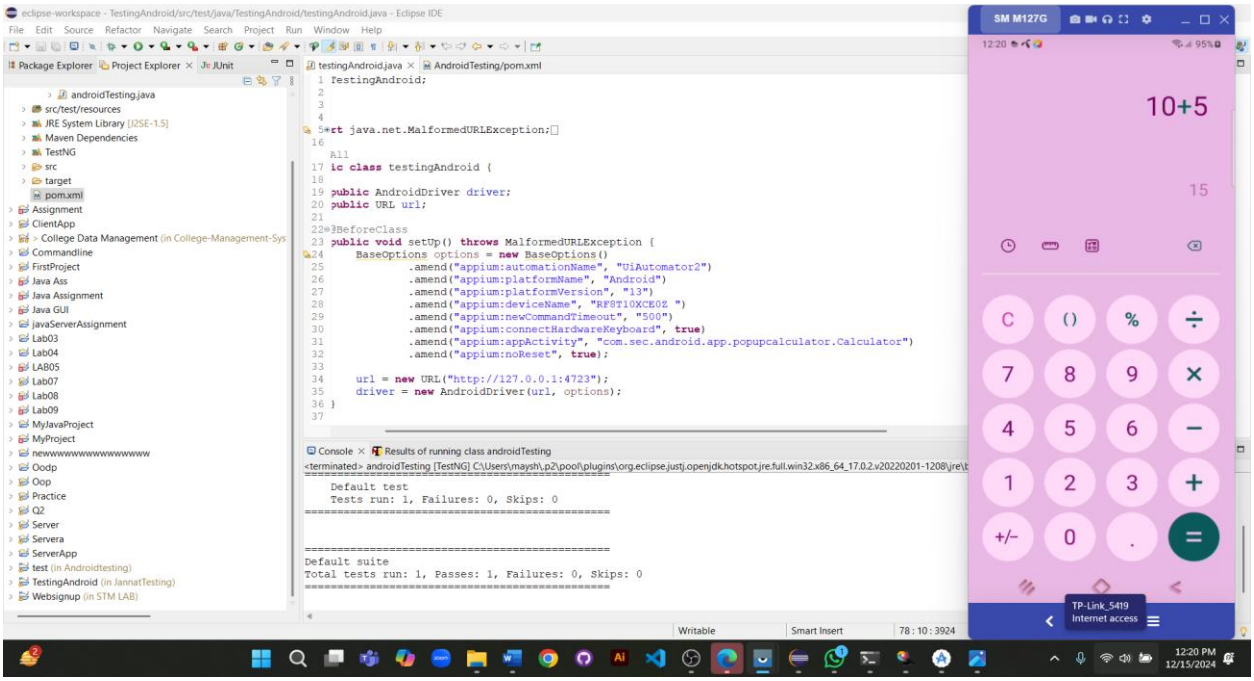

Appium Inspector
File Edit View Help
Appium Server
Select Cloud Providers
Remote Host 127.0.0.1
Remote Port 4723
Remote Path /
SSL
Advanced Settings
Capability Builder
Saved Capability Sets 2
Attach to Session...
appium:automationN text UiAutomator2
appium:platformNar text Android
appium:platformVe: text
Text Starts and/or Ends With Whitespace
appium:deviceName text RF8T10XCE0Z
appium:newCommandT text 500
Automatically add necessary Appium vendor prefixes on start
JSON Representation
{
"appium:automationName": "UiAutomator2",
"appium:platformName": "Android",
"appium:platformVersion": "13",
"appium:deviceName": "RF8T10XCE0Z ",
"appium:newCommandTimeOut": "500"
}


VYSOR
Android Devices
SM M127G
Android not found? Make sure Android USB Debugging is enabled.
Windows users need to install ADB Drivers.
Using Android SDK ADB server. Force Restart
iOS Devices
No iOS devices are connected.
Download Vysor for iOS on the App Store and launch the
Windows users will also need to install the
Vysor Dongle not found. Mirroring only mode.
Windows users must install a driver for ESP32 dongles.
Connect Network or Shared Device
Settings
Show Serial Numbers
Share All Devices
Customize Vysor
Install Camera Plugin
About
Vysor Free Version 5.0.72 (Runtime 5.0.7)
Not logged in. Must be logged in to purchase Vysor Pro or retrieve an existing license.
Contact
Bug Report
Manual
Advanced
SM M127G
About phone
Fatematul's M12
Edit
Phone number Unknown
Product name Galaxy M12
Model name SM-M127G/DS
Serial number RF8T10XCE0Z
IMEI (slot 1) 357484291104656
IMEI (slot 2) 357621481104653
Status information
Legal information
Software information
Battery information
Search
10:24 AM
12/15/2024

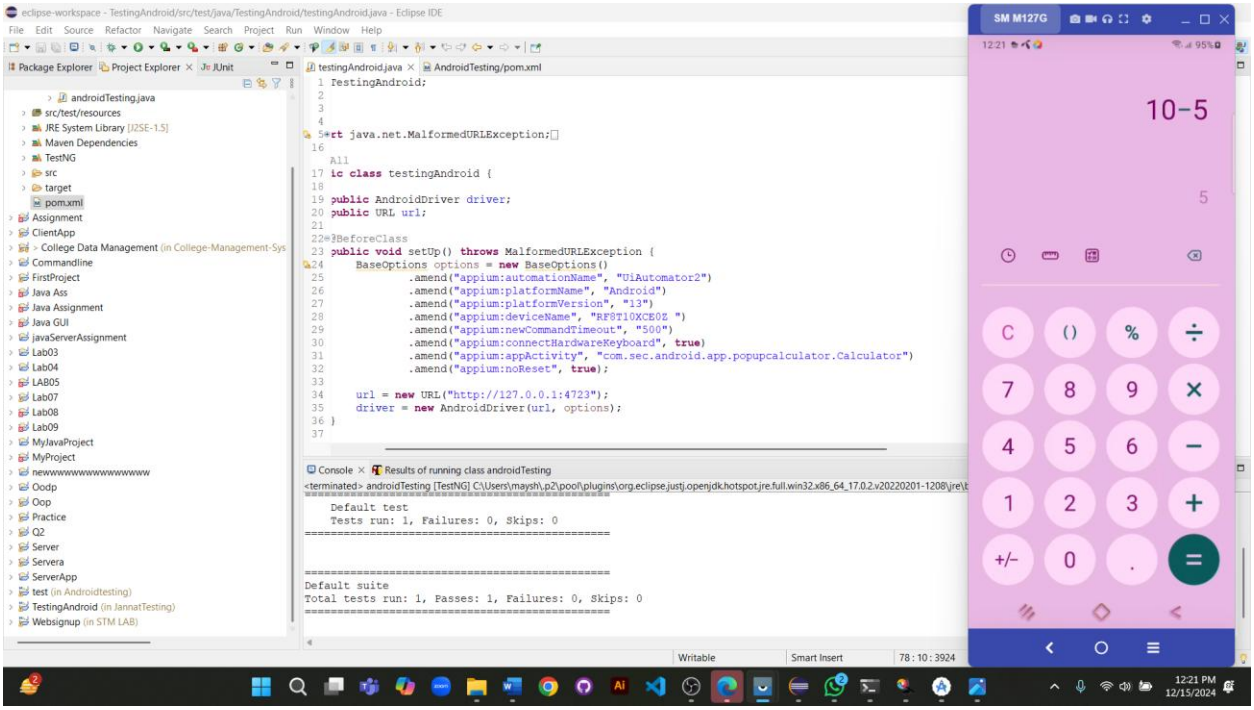


Testing in Action:

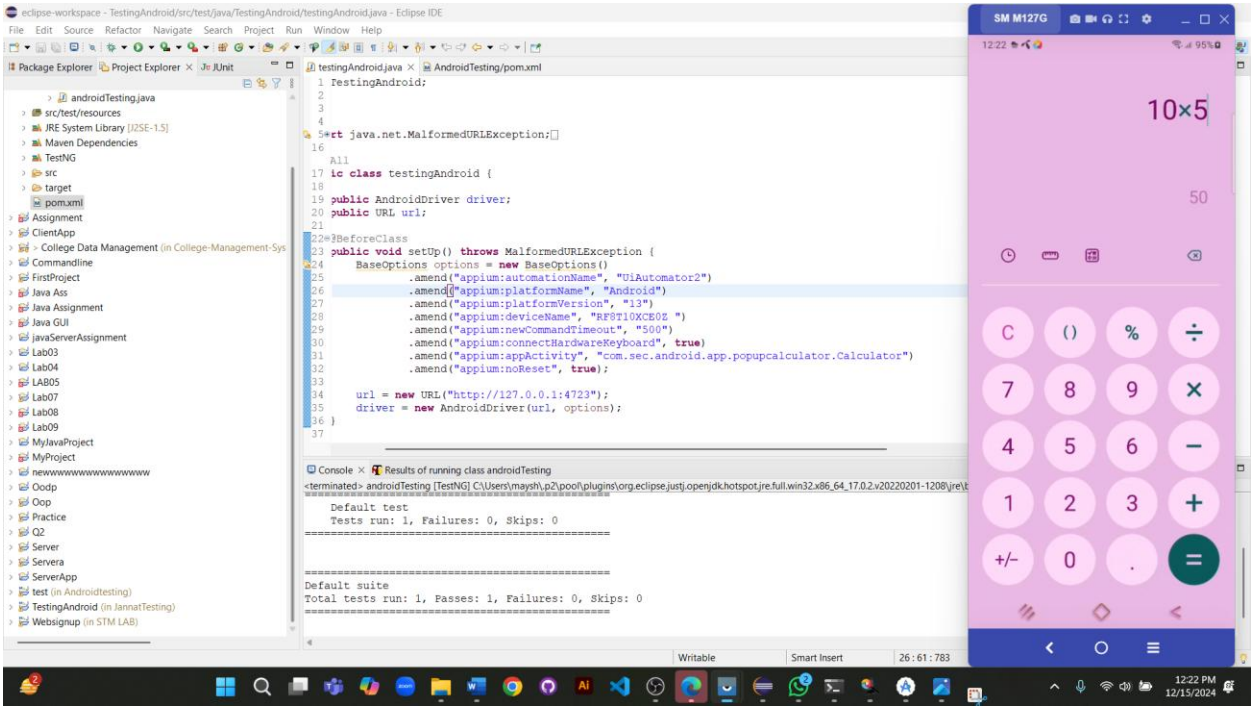
Addition testing:



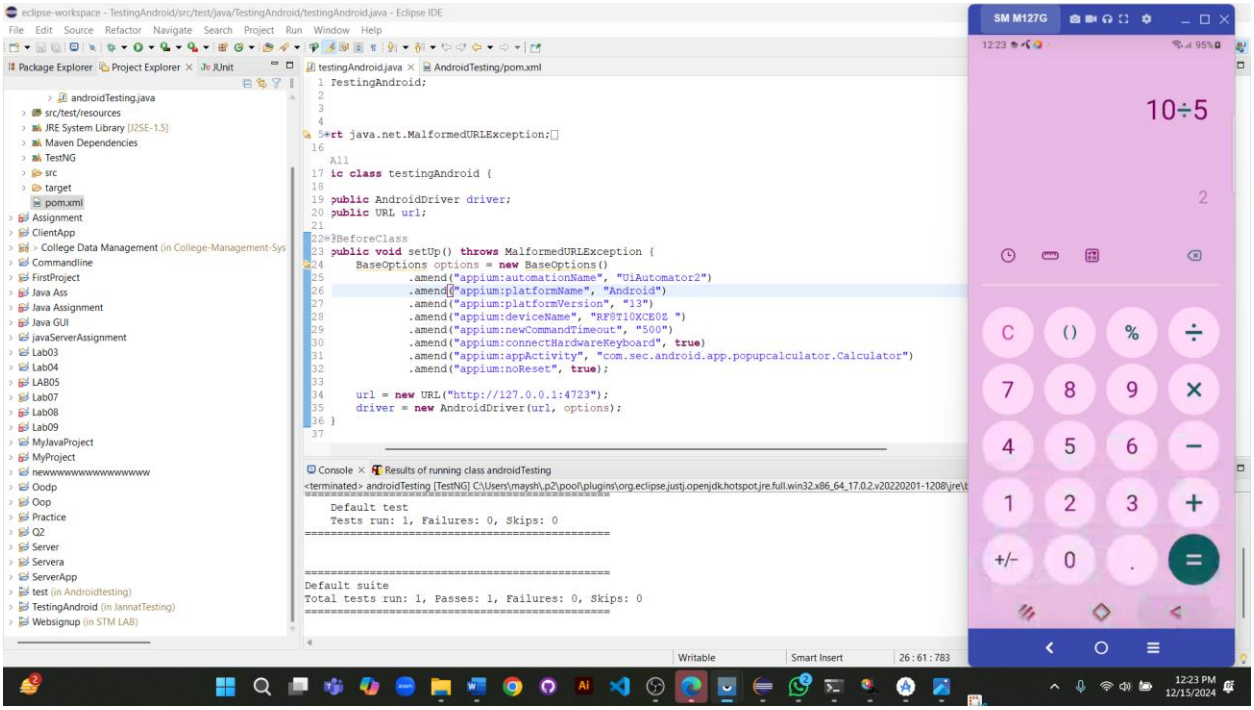
Subtraction testing:



Multiplication testing:



Division testing:



Results verifying the accuracy of the calculator: