**Driver Methods**

1. **Unlock Phone**

This driver method will help us to unlock our Mobile phone

We have to use two extra capabilities

dc.setCapability("unlockType", "pin");

dc.setCapability("unlockKey", "15489666");

1. driver.installApp(“path of .apk”); 🡪 to install appln
2. driver.isAppInstalled(“package name”); 🡪 to check if app is installed
3. driver.removeApp(“package name”); 🡪 to uninstall app
4. driver.activateApp("package name"); 🡪 to open app running in background
5. driver.runAppInBackground(Duration.*ofSeconds*(0)); 🡪 to run app in background
6. driver.queryAppState("package name"); 🡪 to check the status of the appln (running in foreground and background)
7. driver.currentActivity();🡪to get the current activity
8. driver.isDeviceLocked(); 🡪 to check if device is unlocked
9. driver.openNotifications(); 🡪 to open notification
10. driver.hideKeyboard(); 🡪 to hide the keyboard
11. ScreenOrientation screen = driver.getOrientation();

driver.rotate(screen.LANDSCAPE);

1. driver.context(); 🡪 to switch to particular context
2. driver.getContextHandles(); 🡪 to fetch the contexts of diff applns in mobile(native app, hybrid app) ( works like getWindowHandles)
3. driver.get("url"); 🡪 to pass the url
4. driver.pressKey(new KeyEvent(AndroidKey.***HOME***));
5. driver.toggleWifi();🡪to on/off wi-fi
6. driver.toggleAirplaneMode();
7. driver.toggleData();
8. driver.toggleLocationServices();
9. driver.setClipBoardText(“text”); 🡪to set value to clipboard
10. driver.getClipboardText(); 🡪 to set value from clipboard

Ex –

**public** **class** Drivers {

@Test

**public** **void** driverMethods() **throws** Throwable {

DesiredCapabilities dc = **new** DesiredCapabilities();

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

dc.setCapability("automationName", "uiAutomator2");

dc.setCapability("deviceName", "Madhumitha jaganath");

dc.setCapability("UDID", "RZ8T31JR73N");

URL u = **new** URL("http://localhost:4723");

AndroidDriver driver = **new** AndroidDriver(u,dc);

//to check if device is locked or not

driver.isDeviceLocked();

//install app

driver.installApp("C:\\Users\\User\\Desktop\\Appium\\apk files\\General-Store.apk");

//verify if app is installed

**boolean** isInstalled = driver.isAppInstalled("com.androidsample.generalstore");

System.***out***.println(isInstalled);

driver.findElement(AppiumBy.*accessibilityId*("App")).click();

driver.findElement(AppiumBy.*accessibilityId*("Activity")).click();

driver.findElement(AppiumBy.*androidUIAutomator*

("new UiScrollable(new UiSelector()) .scrollIntoView(text(\"Screen Orientation\"));"));

Thread.*sleep*(2000);

//change the screen orientation

ScreenOrientation screen = driver.getOrientation();

driver.rotate(screen.***LANDSCAPE***);

//to hide the keaboard

driver.hideKeyboard();

//to open notification

driver.openNotifications();

//to get the status of application

ApplicationState status = driver.queryAppState("com.androidsample.generalstore");

//to run app in background

driver.runAppInBackground(Duration.*ofSeconds*(20));

System.***out***.println(status);

//to activate the app

driver.activateApp("com.androidsample.generalstore");

System.***out***.println(status);

//to get the current activity of the app

String activity = driver.currentActivity();

System.***out***.println(activity);

//to install the app

driver.removeApp("com.androidsample.generalstore");

System.***out***.println(isInstalled);

driver.pressKey(**new** KeyEvent(AndroidKey.***HOME***));

}

}

**Context Handle**

Ex-

@Test

**public** **void** swithTest() **throws** Throwable

{

//Starting server Programatically

File f=**new** File("C://Users//SOUMYASANTA SAHOO//AppData//Roaming//npm//node\_modules//appium//build//lib//main.js");

AppiumDriverLocalService sb=**new** AppiumServiceBuilder()

.withAppiumJS(f)

.withIPAddress("127.0.0.1").usingPort(4723).withTimeout(Duration.*ofSeconds*(300)).build();

sb.start();

DesiredCapabilities dc=**new** DesiredCapabilities();

dc.setCapability(MobileCapabilityType.***PLATFORM\_NAME***, "Android");

dc.setCapability(MobileCapabilityType.***DEVICE\_NAME***, "Galaxy M30s");

dc.setCapability(MobileCapabilityType.***AUTOMATION\_NAME***, "UiAutomator2");

dc.setCapability(MobileCapabilityType.***UDID***, "RZ8M83ZJH2W");

dc.setCapability("appPackage", "com.androidsample.generalstore");

dc.setCapability("appActivity", ".SplashActivity");

URL u=**new** URL("http://localhost:4723");

AndroidDriver driver = **new** AndroidDriver(u,dc);

driver.manage().timeouts().~~implicitlyWait~~(20, TimeUnit.***SECONDS***);

driver.findElement(AppiumBy.*id*("com.androidsample.generalstore:id/spinnerCountry")).click();

Thread.*sleep*(4000);

driver.findElement(AppiumBy.*androidUIAutomator*("new UiScrollable(new UiSelector()).scrollIntoView(text(\"India\"));"));

driver.findElement(AppiumBy.*xpath*("//android.widget.TextView[@text='India']")).click();

driver.findElement(AppiumBy.*id*("com.androidsample.generalstore:id/nameField")).sendKeys("Soumya");

driver.findElement(AppiumBy.*id*("com.androidsample.generalstore:id/radioMale")).click();

driver.findElement(AppiumBy.*id*("com.androidsample.generalstore:id/btnLetsShop")).click();

driver.findElement(AppiumBy.*xpath*("(//android.widget.TextView[@text='ADD TO CART'])[1]")).click();

driver.findElement(AppiumBy.*id*("com.androidsample.generalstore:id/appbar\_btn\_cart")).click();

driver.findElement(AppiumBy.*id*("com.androidsample.generalstore:id/btnProceed")).click();

Set<String> contextHandles = driver.getContextHandles();

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

**for**(String ch: contextHandles)

{

System.***out***.println(ch);

}

Thread.*sleep*(5000);

driver.context("WEBVIEW\_com.androidsample.generalstore");

// We have to use "appium --allow-insecure chromedriver\_autodownload" command if getting chrome driver not supported

driver.findElement(AppiumBy.*xpath*("//input[@name='q']")).senddKeys("selenium"+Keys.***ENTER***);

}

**Automating Web App**

For Automating web Apps we need two extra capabilities those are

dc.setCapability(MobileCapabilityType.***BROWSER\_NAME***, "chrome");

dc.setCapability("chromedriverExecutables", "C:\\Users\\SOUMYASANTA SAHOO\\Downloads\\Compressed\\chromedriver\_win32\\chromedriver.exe");

We need the second capabilities if we don’t have the latest chrome driver

Ex-

package MobileBrowser;

import java.io.File;

import java.net.MalformedURLException;

import java.net.URL;

import java.time.Duration;

import org.openqa.selenium.remote.DesiredCapabilities;

import org.testng.annotations.Test;

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

import io.appium.java\_client.remote.MobileCapabilityType;

import io.appium.java\_client.service.local.AppiumDriverLocalService;

import io.appium.java\_client.service.local.AppiumServiceBuilder;

public class mobileBrowserTest {

@Test

public void fbTest() throws Throwable

{

//Starting server Programatically

File f=new File("C://Users//SOUMYASANTA SAHOO//AppData//Roaming//npm//node\_modules//appium//build//lib//main.js");

AppiumDriverLocalService sb=new AppiumServiceBuilder()

.withAppiumJS(f)

.withIPAddress("127.0.0.1").usingPort(4723).withTimeout(Duration.ofSeconds(300)).build();

sb.start();

// We have to use "appium --allow-insecure chromedriver\_autodownload" command if getting chrome driver not supported

DesiredCapabilities dc=new DesiredCapabilities();

dc.setCapability(MobileCapabilityType.PLATFORM\_NAME, "Android");

dc.setCapability(MobileCapabilityType.DEVICE\_NAME, "Galaxy M30s");

dc.setCapability(MobileCapabilityType.AUTOMATION\_NAME, "UiAutomator2");

dc.setCapability(MobileCapabilityType.UDID, "RZ8M83ZJH2W");

dc.setCapability(MobileCapabilityType.BROWSER\_NAME, "chrome");

dc.setCapability("chromedriverExecutables", "C:\\Users\\SOUMYASANTA SAHOO\\Downloads\\Compressed\\chromedriver\_win32\\chromedriver.exe");

URL u=new URL("http://localhost:4723");

AndroidDriver driver = new AndroidDriver(u,dc);

driver.get("https://www.facebook.com");

driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(20));

}

}

To inspect Web App we have to open chrome browser and we have to hit chrome://inspect

public class Launch {

@Test

public void launchBrowser() throws MalformedURLException

{

UiAutomator2Options options= new UiAutomator2Options();

options.setPlatformName("android");

options.setDeviceName("OnePlus Nord");

options.setCapability("browserName", "chrome");

options.noReset();

options.setCapability("chromedriverExecutables", "./chromedriver.exe");

URL url= new URL("http://localhost:4723");

AndroidDriver driver= new AndroidDriver(url,options);

driver.get("https://www.wikipedia.org/");

System.out.println(driver.getTitle());

}

}