# Foundation Level Tester for Appium Sample Exam

### Release – Version 1.0

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**Revision History**

| Version | Date | Remark |
|---------|------|--------|
| 1.0 | 28.7.2022 | Release |

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## 1.1 Question #01

Single Responsibility Principle (SRP) is for?

a) The methods of all repeated codes are place in one method.

b) Each class should have one responsibility, one single purpose, one reason to change.

c) Page Object Pattern (POP) and Don't Repeat Yourself (DRY) principles are combined in SRP.

d) If the UI changes for a given page, the tests do not need to be change.

## 1.2 Question #02

You are evaluating the use of the Appium® framework, your manager has asked you to prepare a checklist with all of the points to be checked, clarified and resolved with management, in case the company would not allow some of them.

What else should be considered together with the Appium® installation process and dependencies?

a) Check for budget to order the license to use Appium®, check for download policy approved by your company. Assess integrations needed such as Test Reporting, Test Execution, Exception Handling, Authentication.

b) Check for no blocking policy within the company, contact the Appium® sales team.
Asses all integrations needed for Testing activities such as Reporting, execution, Authentication, Logging. Possibly be part of a community

c) No blocking policy to download from acknowledged external link such as Appium.org, Appium.io. All development kit and tools can be download and installed without breaching policy. Asses all integrations needed for Test Reporting, Test Execution, File Handling, Exception Handling, Authentication, Logging, connect to devices to be tested. Any support to monitor penetration testing as well performance testing are granted. Possibly be part of a community internal/external

d) Given the access to the Appium® libraries, drivers and its dependencies will be enough to build a reliable and complete Test Automation Framework.

## 1.3 Question #03

By implementing a log mechanism to a mobile app, which method(s) would you implement to enable/ disable, or writing of (debug) information to an e.g., flat file or table in a data base?

a) Keep all information always active and disable the logging only when the app is deployed in prod (shared).

b) Never store information like security lacks or performances in log files.

c) A flag to enable/disable logging activities.

d) Always stick to the Java native logging mechanisms as third-party libraries might be buggy.

## 1.4    Question #04

Some articles describe that Appium® is able / not able to perform certain things.
From the following statements, which is correct about Appium®?

a)    Appium® can test hybrid, native and mobile web app

b)    Appium® can be used only with Java programming language (other languages will be supported in a future release)

c)    Appium® is a costly framework

d)    Appium® does not support parallel testing (1 device at time can be tested)

## 1.5    Question #05

Which one of the following statements BEST describes tow to perform a security test on a mobile app

a)    The mobile app is easy to use (user friendly) and able to monitor any external/internal access

b)    The mobile app is correctly resized on different devices with all menus and text clearly visible?

c)    The mobile app can be easily deinstalled in case of any thought about security lack

d)    The mobile app is able to block any attack by external or internal try

## 1.6    Question #06

When can a Wait Mechanism help and which tasks would do/don't complete?

a)    Stop the app for a given amount of time.

b)    Deactivate any I/O, since the wait disable all channels.

c)    With implicit Wait defined, the App waits for specific amount of time. Any pending I/O should be completed.

d)    With explicit Wait enabled, the wait cannot be set since it is not supported by the Appium®

## 1.7 Question #07

Following each testing phase, a report is requested to be prepared and shared.
Although the reports are being created automatically some quality checks should be done manually to ensure the correctness of data and results shown.

Which one from the next list, is the <u>MOST</u> likely manual check needed to be done?

a)  Add active link to all evidences

b)  Control all automatically created data and results, wrt executed test

c)  Add evidences of all executed Test scripts (possibly include the test steps and complexity for each test)

d)  Generate charts for all executed test types

## 1.8 Question #08

You are asked to plan and execute different test suites, based on the usual test duration of each iteration, select from the below list, the length of each test phase from shorter to longer.

Given the following execution types:

I.  Full Regression
II.  Automated Regression test
III.  Official build test
IV.  Short Regression
V.  Health Test

a)  IV, I, II, III

b)  II, I, IV, V

c)  IV, II, , III

d)  V, IV, I, II

## 1.9 Question #09

Which from the following choices is <u>NOT</u> a success factor for automated test cases

a)  Good and stable automation tools

b)  Stable and reliable test environment, including simulators and /or emulators

c)  Set high automation coverage as a goal

d)  Clear and stable requirements

## 1.10 Question #10

Your test cases are ready to be executed, everything necessary for the execution has been correctly setup or initialized. The below list shows a portion of the code which is being executed.
The initial part of the tests contains some statements (the code below is not complete),

```
…
cap.setCapability(Capabilityt.PLATFORM, device.getDeviceProductName());
cap.setCapability("deviceName", device.getModelNumber());
cap.setCapability("app", "NameOfApp");
cap.setCapability(CapabilityType.VERSION, device.getProductVersion());
cap.setCapability("platformName", device.getDeviceProductName());
cap.setCapability("udid", device.getUniqueDeviceID());
…
```

Given the following definitions

| | |
|---|---|
| i. | Unique device identifier of the connected device |
| ii. | Unique identifier of the app version under test |
| iii. | Unique identifier of the Test Case |
| iv. | Unique package identifier of the app |
| v. | The device has a unique identifier, and cannot be changed |
| vi. | The device has a unique identifier, it can be modified by setCapabilities |
| vii. | The device has a unique identifier, it can be changed by local admin right on the device |
| viii. | The App has a unique identifier, and cannot be changed |
| ix. | The App has a unique identifier, however it can be modified by setCapabilities |

Find the correct answer

a. i,ii,iv : true, iii,v,vi,vii,ix,: false

b. i,v : true, ii,iii,iv,vi,vii,viii,ix : false

c. i,iv,v,vi,vii : true, ii,iii,viii,ix : false

d. ii,iv,viii : true, i,iii,v,vi,vii,ix : false


## 1.11 Question #11

On a MAC based computer having installed XCUTest and UIAutomatr2 drivers, which type of app can you test

a) Windows, iOS and Android apps

b) Android, Windows based Apps

c) Android, iOS, Mac OS X Apps

d) iOS and Android apps

## 1.12 Question #12

One of the following lists is <u>WRONG</u> with respect to the definition of Appium® (as per the A4Q Foundation Level Tester for Appium Syllabus)

a) Appium® is a licensed automation tool managed by JS-Foundation

b) The Appium® client is not developed for a single programming language

c) Appium® does not need any special tool to be recompiled

d) Appium® is not limited to a specific framework

## 1.13 Question #13

Which of the next texts, identifies the correct capability, to identify the absolute path in an Android app.

a) URI

b) URL

c) LOCAL

d) APP

## 1.14 Question #14

Given the list below, which is <u>FALSE</u> regarding Appium®?

a) Supports JSON protocol

b) It does not require any changes including recompilation of App

c) It has dependency on a specific mobile device

d) Supports automation test execution on physical device simulators and emulators

## 1.15 Question #15

Which are the minimum tools needed to start working with Appium® on a MAC OS based computer, for iOS app

a) XCode, Java, Appium® Server

b) Android Studio, XCODE, Appium Server

c) Java, XCode

d) Appium® Server, XCode, APK, Java

## 1.16  Question #16

Your test scripts are ready to be executed, you start the app under test, when can you "Attach to Session" in the Appium® desktop app?

a)   It is used to start the Appium® Server, i.e. no needs to "attach to session"

b)   It is used to record and play device interactions

c)   Before starting the test execution

d)   When the test has started its execution and the device is ready

## 1.17  Question #17

Which of the following Environmental variables are asked to be created / updated during the installation of the Android environment on a Windows-based computer.

a)   ANDROID_PATH, ANDROID_VARS

b)   ANDROID_HOME

c)   ANDROID_PARAMETERS

d)   ANDROID_VARIABLE, ANDROID_HOME

## 1.18  Question #18

We need to start Appium® to test an Android app using Appium® with Java client

**Note**: Device can be real device or emulator.

a)   Appium® IDE, Android SDK, Appium® Java Client Libraries, Development Environment

b)   XCode, Development Environment, Appium Server, Device

c)   Appium® Server, Appium® Java Client Libraries, Android SDK, Development Environment

d)   Appium® Java Client Libraries, Appium® Server, Android SDK, XCode, Device

Select the correct starting order from the above list.

### 1.19 Question #19

Given a test execution on real devices which is a <u>FALSE</u> statement in the below list, when comparing real devices and emulators/simulators?

 a) An emulator uses the same software as installed on a real device, physical devices have initial high costs

 b) An emulator is a mimic of a real device, physical devices have low initial costs

 c) An emulator behaves as a physical device, "final" devices should be better used for acceptance test by user such as market acceptance and survey.

 d) An emulator should be used during the whole test phases, final / physical devices become obsolete within very short time

### 1.20 Question #20

Automating test cases is a common sentence, but which of the following statements is the correct one?

 a) Automate all test cases that can be easily automated

 b) Automate test cases with few test steps (not more than 5)

 c) Automate only test cases, they are part of a weekly regression test

 d) Automate all test cases

### 1.21 Question #21

Which one of the following choices, describes at best the Appium® Server?

 a) There are different Appium® Servers, one for each supported programming language

 b) The Appium® Server is maintained by the user, based on template released by Appium® Foundation.

 c) The Appium® Server checks and converts the user commands to command for automation steps.

 d) Appium® Server makes available API interfaces to perform a predefined set of actions

### 1.22 Question #22

Appium® 2.x differs from the previous versions by few things. Which one of the following can be understood as improvements?

 a) Appium® 2.0 is fixing all open issues / known problems by previous Appium® 1.x

 b) New handling for "DesiredCapabilities"

 c) Enhanced the driver support

 d) Drivers are decoupled, creation of driver and plugin ecosystem

### 1.23  Question #23

Which of the following statements describe at best "Desired Capabilities" in Appium®?

 a) Desired Capabilities uses path expressions to select nodes or node-sets in an XML document

 b) Desired Capabilities are keys and values encoded in a JSON object.

 c) Desired Capabilities are XML configuration sent by the Appium® clients to the server

 d) Desired Capabilities are desired configurations sent by the server to the Appium® clients.

### 1.24  Question #24

During the creation of test script, some keywords, such as @Before, @After, @Test are used. From the list below, select the statement which is clearly wrong

 a) @After clean-up data created during the script execution, reset the device to idle state, Moreover the communication driver can be quit as well.

 b) @Before clean-up data from previous execution, reset the device to initial state or quit the communication driver.

 c) @Test It is the main part of execution. Here all devices setup, data initialization, interactions with device and the application under test will be performed

 d) Imports used to import objects like AndroidDriver, DesiredCapabilities, MobileElements

### 1.25  Question #25

Creating an App, you enter a capability to specify the actual operating system version for the device under test. Select the correct answer from the list below.

 a) Platform Version

 b) Operating System Version

 c) System Version

 d) Device Version

## 1.29  Question #29

To perform a complete test execution, several steps need to be performed in a given order. Please select from the below list the <u>MOST</u> appropriate.

Given the following list

|      |                            |
|------|----------------------------|
| i.   | Creation/change of stories |
| ii.  | Definition of test cases   |
| iii. | Test report                |
| iv.  | Data creation / adaption   |
| v.   | Test execution             |

a)   I, III, IV, V

b)   II, IIII, V, V

c)   II, IV, V, III

d)   I; II; III, IV, V

## 1.30  Question #30

Which one of the following tests types is <u>NOT</u> a test case for mobile app, or at least not as first priority test type?

a)   App Connectivity

b)   Browser Compatibility

c)   Adaptability

d)   Installation / Download

## 1.31  Question #31

Creating an Android and/or iOS Apps, you need to use (call) a minimum set of capabilities, which from the following are the correct one?

a)   platformName, platformVersion, deviceName, automationName, language

b)   platformName, platformVersion, udid, automationName, bundledId

c)   platformName, browserName, deviceName, automationName, udid

d)   platformName, platformVersion, deviceName, automationName, app

## 1.32  Question #32

By adopting Page Object Pattern (POP), which advantages are provided?

   a)  There is a single repository for the services offered by the page, instead of having them scattered throughout the test cases.

   b)  It ensures global access point to the instance

   c)  Provides interface for creating objects in a superclass, however it does not allow subclasses to alter the created objects' types

   d)  Allows to attach new behaviors to objects by placing these objects inside special wrapper objects

## 1.33  Question #33

The test automation team is creating a template to be shared with other teams from other departments. The adopted programming language is Java and the test scripts will be created for Appium®.

Which is the most correct template order list to be created:

   a)  @Before, Import, @Test, @After

   b)  Import, @Test, @Before, @After

   c)  Import, @Before, @Test, @After

   d)  Import, @Before, @After @Test

## 1.34  Question #34

Several articles describe the "Appium® philosophy". Which one of the list below is NOT correct?

   a)  Appium® is a licensed framework, by that the support is granted

   b)  The app you have tested can be shared to the marked without any further change, as e.g. recompilation

   c)  Write your tests in any of the supported language, using any framework

   d)  Use a standard automation specification

## 1.35  Question #35

Executing the portion of code below, the Appium® session will not start successfully and in addition some code issues are present in it. What is needed to fix those and run successfully the test?

```
@Before
public void setUp() throws MalURLExcep {
    …
    cap.setCapability("testName", "Start Android App, Iteration 32");
    cap.setCapability("udid","<device_id>");
    cap.setCapability("platformName", MobilePlatform.Android)
    MyDriver = new AndDriver<>(new URL("https://0.0.0.0:4723/XX/Hub4"), cap);
    MyDriver.manage().timeouts().implicitlyWait(3, SECONDS);
    …
}
@Test
public void startDemo() {
  MyDriver.rotate(ScreenOrientation.PORTRAIT);
  MyDriver.findElement(By.xpath("//*[@id='usernameTextField']")).sendKey("A Name");
  …
  MyDriver.findElement(By.xpath("//*[@id='passwordTextField']")).sendKey("testBank");
  MyDriver.findElement(By.xpath("//*[@id='loginButton']")).click();
  MyDriver.findElement(By.xpath("//*[@id='makePaymentButton']")).click();
  MyDriver.findElement(By.xpath("//*[@id='amountTextField']")).sendKeys("32");
  MyDriver.findElement(By.xpath("//*[@id='countryButton']")).click();
  MyDriver.findElement(By.xpath("//*[@text='Switzerland']")).click();
  MyDriver.findElement(By.xpath("//*[@id='sendPaymentButton']")).click();
  MyDriver.findElement(By.xpath("//*[@text='No']")).click();
  …
}
@After
public void Down() {
  MyDriver.quit();
}
}
```

a)  Appium® Server needs to be specified during the creation of the driver instance. "sendKey" needs to be replaced with "sendKeys".

b)  PlatformName and PlatformVersion must be specified.

c)  "sendKey" needs to be replaced with "sendKeys". PlatformName and PlatformVersion must be specified.

d)  "sendKey" needs to be replaced with "sendKeys". All other missing capabilities are optional.

## 1.36 Question #36

You need to increase the android test cases execution; they are running on Azure DevOps hosted pipeline. Which of the following is the MOST valid solution?

a)   Configure to run you Appium® tests using nested hypervisor

b)   Configure to run you Appium® tests on bigger reserved machines

c)   Configure to run you Appium® tests on Real Device Hardware

d)   Configure to run you Appium® tests headless

## 1.37 Question #37

For what is Homebrew used for in Appium®?

a)   Install Android Studio

b)   Install XCode

c)   Install Appium® Server

d)   Install Java

## 1.38 Question #38

Which of the following commands install Appium® 2.0

a)   npm install –gvt appium2@next

b)   npm install –gt Appium-x

c)   npm install –gv appium@appium2-0

d)   npm install –g appium@next

## 1.39 Question #39

Given the list below, choose please the correct answer.

a)   Appium® can be used only with new generation programming languages, such as Java, Python

b)   Appium® is a proprietary Framework

c)   Appium® can test Mobile Web, Hybrid and native apps

d)   Appium® is a single component included in the app

## 1.40  Question #40

Which of the following sentences can be a good use-case for Adaptability testing in a mobile app?

a)   Mobile application ensures to stop/block any attack by external (e.g. hack) or internal (e.g. malware Software)

b)   Mobile application is correctly resized on different devices with all menus be visible

c)   Mobile application is user friendly (easy to use), the application is self-explaining

d)   How the application can be installed and reinstalled following a deinstallation.

# Answer Keys

| Question No. | Answer Keys | Point |
|:---:|:---:|:---:|
| 1 | B | 1 |
| 2 | C | 1 |
| 3 | C | 1 |
| 4 | A | 1 |
| 5 | D | 1 |
| 6 | A | 1 |
| 7 | B | 1 |
| 8 | D | 1 |
| 9 | C | 1 |
| 10 | B | 1 |
| 11 | D | 1 |
| 12 | A | 1 |
| 13 | D | 1 |
| 14 | C | 1 |
| 15 | A | 1 |
| 16 | D | 1 |
| 17 | B | 1 |
| 18 | C | 1 |
| 19 | B | 1 |
| 20 | A | 1 |
| 21 | C | 1 |
| 22 | D | 1 |
| 23 | B | 1 |
| 24 | B | 1 |
| 25 | A | 1 |
| 26 | C | 1 |
| 27 | B | 1 |
| 28 | C | 1 |
| 29 | C | 1 |
| 30 | B | 1 |
| 31 | D | 1 |
| 32 | A | 1 |
| 33 | C | 1 |
| 34 | A | 1 |
| 35 | A | 1 |
| 36 | D | 1 |
| 37 | B | 1 |
| 38 | D | 1 |
| 39 | C | 1 |
| 40 | B | 1 |