C5050-408.exam

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Time Limit: 120 min

IBM

C5050-408

IBM Worklight Foundation V6.2, Mobile Application Development

Exam A

QUESTION 1
An application developer has started configuring header-based authentication for an application. So far, the developer has implemented the security test and login module as follows:

```
<securityTests>
    <customSecurityTest name="HeaderTest">
        <test realm="RealmHeader" isInternalUserID="true" />
    </customSecurityTest>
</securityTests>

<loginModules>
    <loginModule name="HeaderLogin">
        <className>com.worklight.core.auth.ext.HeaderLoginModule</className>
        <parameter name="user-name-header" value="username"/>
    </loginModule>
</loginModules>
```

Which of the following is a valid realm definition that the application developer can use for this header login module?

A. ```
<realms>
    <realm name="RealmHeader" loginModule="HeaderLogin"/>
</realms>
```
B. ```
<realms>
    <realm name="RealmHeader" loginModule="HeaderLogin">
        <onLoginUrl>/login.html</onLoginUrl>
    </realm>
</realms>
```
C. ```
<realms>
    <realm name="RealmHeader" loginModule="HeaderLogin">
        <className>com.worklight.core.auth.ext.HeaderAuthenticator</className>
    </realm>
</realms>
```
D. ```
<realms>
    <realm name="RealmHeader" loginModule="HeaderLogin">
        <className>com.worklight.integration.auth.ext.HeaderAuthenticator</className>
        <parameter name="login-page" value="/login.html"/>
        <parameter name="error-page" value="/loginError.html"/>
    </realm>
</realms>
```

Correct Answer: D
Section: (none)

Explanation

Explanation/Reference:
Each realm has a name, a loginModule specification, a className of an authenticator implementation and optional parameters.

Example:
<realm name="WASLTPARealm" loginModule="WASLTPAModule">
  <className>com.worklight.core.auth.ext.WebSphereFormBasedAuthenticator</className>
</realm>

References:
https://developer.ibm.com/mobilefirstplatform/documentation/getting-started-6-3/authentication-security/authentication-concepts/

QUESTION 2
An application developer has determined that Worklight does not provide an authenticator that meets the complex needs of the application being developed. It is decided that the developer must implement a custom authenticator.

Which interface must the application developer implement?

A. com.worklight.core.auth.api.CustomAuthenticator
B. com.worklight.core.auth.api.AuthenticationService
C. com.worklight.server.auth.api.CustomAuthenticator
D. com.worklight.server.auth.api.WorkLightAuthenticator

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Your custom authenticator class must implement the com.worklight.server.auth.api.WorkLightAuthenticator interface.

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.2.0/com.ibm.worklight.dev.doc/devref/t_custom_authenticator.html

QUESTION 3
An application developer has implemented certificate based authentication. The developer wants to enforce that the application immediately authenticates with a certificate when connecting to the Worklight server.

What must the application developer do to configure this security setting for the Android environment?

A. Add protection for static resources in the `authenticationConfig.xml` file.

B. Add the certificate-based securityTest as an attribute to the android element in the `applicationDescriptor.xml` file.

C. Enable and configure certificate based authentication in the `worklight.properties` file.

D. Enable WebShere Application Server application security to enforce authentication by WebShere Application Server.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Application authenticity is based on certificate keys that are used to sign the application bundle.
The following sections present an example of how application authenticity is enabled for iOS and Android:
The first step in enabling application authenticity is to modify your authenticationConfig.xml file to add relevant authenticity realms to your security tests:
If you use <mobileSecurityTest>, you must add the <testAppAuthenticity/> child element to this file.
If you use <customSecurityTest>, you must add <test realm="wl_authenticityRealm"/> child element to the file.
Etc.

Reference:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.1.0/com.ibm.worklight.dev.doc/dev/c_ibm_worklight_app_authentication_overview.html

QUESTION 4
An application developer is implementing the server-side components for custom device provisioning. To accomplish this task, the developer has created the adapter named ProvisioningAdapter. Finally, two functions must be added to complete the task.

What must the two functions do that the application developer should add to the adapter?

A. Validate the certificate from the device is still valid.
   Validate that the device is authorized to be provisioned.

B. Validate the certificate from the device is still valid.
   Validate the provisioning request.

C. Validate that the device provisioning is triggered.
   Validate that the login module provides the correct credentials.

D. Validate that the device provisioning is triggered.
   Validate that the device is authorized to be provisioned.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

With Custom device provisioning you can validate:

Certificate Signing Request during initial provisioning flow.
Certificate during every application start.

References:
https://developer.ibm.com/mobilefirstplatform/documentation/getting-started-6-3/authentication-security/custom-device-provisioning/

QUESTION 5
An application developer is working with the Worklight administrator to secure a mobile application using adapter based authentication. The administrator provides the following configuration in the `authenticationConfig.xml` file.

```
<securityTests>
    <customSecutityTest name="AuthenticationAdapter-securityTest">
        <test isInternalUserID="true" realm="AdapterAuthRealm"/>
    </customSecutityTest>
</secutityTests>

<realms>
    <realm loginModule="AdapterAuthLoginModule" name="AdapterAuthRealm">
        <className>com.worklight.integration.auth.AdapterAuthenticator</className>
        <parameter name="login-function" value="AuthAdapter.onAuthRequired"/>
        <parameter name="logout-function" value="AuthAdapter.onLogout"/>
    </realm>
<realms>
<loginModules>
    <loginModule name="AdapterAuthLoginModule">
        <className>com.worklight.core.auth.ext.NonValidatingLoginModule</className>
    </loginModule>
</loginModules>
```

What must the application developer do to ensure security is enforced as required?

A. Create a Worklight adapter named AuthAdapter and implement the onAuthRequired and onLogout functions properly.
B. Create a Worklight adapter named AuthAdapter and implement the onAuthRequired, onLogout, and submitCredentials functions.
C. Create a Java class for the login module named AuthAdapter that implements the interface defined by com.worklight.core.auth.ext.NonValidatingLoginModule paying particular attention to implementing the onAuthRequired and onLogout methods.
D. Create a Java class named AuthAdapter that implements the interface defined by com.worklight.integration.auth.AdapterAuthenticator paying particular attention to implementing the onAuthRequired and onLogout methods.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 6
An application developer is securing an application by using an adapter. The application developer has registered the following procedures in the adapter's xml file.

```
<procedure name="submitAuthentication" />
<procedure name="requestForData" securityTest="AuthAdapterTest" />
```

Which function must the application developer invoke in the authentication adapter at the end of the login sequence to consider the user's session authenticated?

A. The `WL.Client.Login` API.
B. The `WL.Server.setActiveUser` API.
C. The adapter's `requestForData` function.
D. The adapter authenticator's login-function.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
WL.Server.setActiveUser creates a user identity in a specified realm.
It is used in authenticator adapters at the end of the login sequence. Creates a user identity in the specified realm with the properties in the specified identity parameter. As a result of this method, the user's session is considered authenticated.

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.0.0/com.ibm.worklight.help.doc/apiref/r_method_wl_server_setactiveuser.html

QUESTION 7
An application developer has implemented the following security test to protect a mobile application.

```
<mobileSecurityTest name="mobileTest">
    <testUser realm="myMobileLoginForm"/>
    <testDeviceID provisioningType="none" />
</mobileSecurityTest>
```

The corporate security team has recently learned about cross-site request forgery (XSRF) attacks against the company's website. The corporate security team wants to prevent further attacks and has asked the developer to protect the mobile application against XSRF attacks.

What step must the application developer take to protect against XSRF attacks?

A. Nothing. By default, a mobileSecurityTest includes protection against XSRF attacks.

B. Define a new webSecurityTest and add the element `<test realm="wl_antiXSRFRealm"/>`

C. Add the element `<test realm="wl_antiXSRFRealm"/>` to the mobileSecurityTest definition.

D. Change the implementation to a custom security test and add the element `<testXSRF realm="wl_antiXSRFRealm" />`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
The mobileSecurityTest contains:
* The following realms, enabled by default: wl_anonymousUserRealm, wl_antiXSRFRealm, wl_remoteDisableRealm and wl_deviceNoProvisioningRealm.
* The user and device realms that you must specify.

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.1.0/com.ibm.worklight.dev.doc/devref/r_security_tests.html

QUESTION 8
An application developer is implementing form-based authentication. The developer has created a challenge handler object to handle challenges from the SampleAppRealm by invoking createChallengeHandler on WL.Client as follows:

```
var sampleAppRealmChallengeHandler = WL.Client.createChallengeHandler ("SampleAppRealm");
```

Which function of the challenge handler must the application developer implement?

A. submitFailure

B. submitSuccess

C. submitLoginForm

D. isCustomResponse

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
References: https://www.ibm.com/developerworks/community/blogs/f870215a-82d8-4701-88a5-7937fb3c73c0/entry/ibm_worklight_authentication_form_based_authentication_using_database_login_module?lang=en

QUESTION 9

An application developer wants to protect their application against specific malware and repackaging attacks by implementing application authenticity testing via the console. Per the requirements, the developer wishes to implement a check where the Worklight Server will test the authenticity of an application. If the application fails the authenticity check, the Worklight Server will output a message to the log containing relevant information, but the application will still run as expected.

Which type of application authenticity should the application developer implement via the console with the above requirements?

A. Enabled, logging
B. Enabled, blocking
C. Enabled, notifying
D. Enabled, servicing

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Worklight Console allows enabling or disabling the application authenticity realm in run time. This feature is useful for the Development and QA environments. There are three modes you can set:
* Enabled, blocking – means that the application authenticity check is enabled. If the application fails the check, it is not served by a Worklight server.
* Enabled, serving – means that the application authenticity check is enabled. If the application fails the check, it is still served by a Worklight server.
* Disabled – means that the application authenticity check is disabled.

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.1.0/com.ibm.worklight.dev.doc/dev/c_ibm_worklight_app_authentication_overview.html

QUESTION 10
An application developer is attempting to implement device single sign-on (SSO) as specified in the following example:

```
<securityTests>
    <mobileSecurityTest name="FormTest">
        <testDeviceID provisioningType="none"/>
        <testUser realm="SampleAppRealm"/>
    </mobileSecurityTest>
</securityTests>
<realms>
    <realm name="SampleAppRealm" loginModule="MyLoginModule">

<className>com.worklight.core.auth.ext.FormBasedAuthenticator</className>
    </realm>
</realms>
<loginModules>
    <loginModule name="MyLoginModule"
```

```
ssoDeviceLoginModule="WLDeviceAutoProvisioningLoginModule">

className>com.worklight.core.auth.exp.NonValidatingLoginModule</className>
        </loginModule>
</loginModules>
```

Upon testing the configuration, the developer finds unexpected results, such as the Worklight project failing to start.

What does the application developer need to do to bring the SSO configuration to a consistent state?

A. Set the sso.cleanup.taskFrequencyInSeconds server property.
B. Specify `<testUser realm="SampleAppRealm" sso="true"/>` in the mobile security test.
C. Add the following line to the mobile security test `<test realm="MySSO" isInternalUserID=:true"/>`
D. Add the following line to the WMAppManifest.xml file: `<Capability Name='ID_CAP_IDENTITY_DEVICE' />`

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Single sign-on is a property of a login module. You can enable single sign-on from a mobileSecurityTest element or from a loginModule element of authenticationConfig.xml. Enabling single sign-on for a custom security test is done on the loginModule element. Enabling single sign-on for a mobile security test is done on the testUser realm of the mobileSecurityTest element.

When configuring mobileSecurityTest elements, enable single sign-on from the securityTest element by setting the value of the sso attribute to true. Note that you can enable SSO for user realms only. If the sso attribute is not specified, it is assumed to be set to false. For example:

```
<mobileSecurityTest name="mst">
  <testDeviceId provisioningType="none"/>
  <testUser realm="myUserRealm" sso="true"/>
</mobileSecurityTest>
```

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.2.0/com.ibm.worklight.dev.doc/devref/t_configuring_device_SSO.html

QUESTION 11
An application developer wants to retrieve the client-side logs of an Android application that is malfunctioning in the production environment.

When is the captured log data sent to the server?

A. After successful client init sequence.
B. When the application crashes.

C. When the application invokes the api `console.log`

D. When the application invokes the api `Logger.setContext (Context)`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
All captured log data, if any, is sent to the MobileFirst Server during each successful client network init sequence and invokeProcedure response, with a 60 second minimum interval between sends.

References:
https://www.ibm.com/support/knowledgecenter/SSHS8R_7.0.0/com.ibm.worklight.dev.doc/devref/c_client-side_log_capture.html

QUESTION 12
An application developer has created a Worklight Adapter that retrieves data from a remote RSS feed and returns the results. The developer is not seeing the expected results in the browser. The developer decides to add debug logging to the code in order to determine why the expected results are not seen.

Where can the application developer locate the output from the debug logging?

In the:

A. server console of Eclipse.

B. Worklight DevTools extension for the Chrome browser.

C. Worklight Server's First Failure Data Capture (FFDC) log.

D. web browser by setting a breakpoint after the adapter call to inspect the result.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Chrome devTools – Remote debugging in Worklight.
In 2012 Chrome implemented an awesome feature called 'Remote debugging'. It introduced proper remote debugging for WebKit browsers.

References:
http://www.optis.be/ibm/worklight/worklight-hybrid-app-debugging-with-chrome-devtools-for-mobile/

QUESTION 13
An application developer wants to use the IBM Mobile Test Workbench to automate the creation, execution, and analysis of functional tests for a Worklight hybrid application on Android devices. The application developer has successfully installed and configured the IBM Mobile Test Workbench.

After creating a test project, the application developer is now ready to generate a test from recording a session on the Android device.

After selecting the application in the list of managed applications available in the Test Workbench Android client view, what must the application developer do to generate the test?

A. 1. Click Record in the mobile client on the device
    2. Interact with the device as needed
    3. Tap the Back button

B. 1. Click Record in the mobile client on the device
    2. Interact with the device as needed.
    3. Click Stop in the mobile client on the device

C. 1. Click Install to install the application on the device
    2. Click Record in the mobile client on the device
    3. Interact with the device as needed
    4. Close the application

D. 1. Click Install to install the application on the device
    2. Click Record in the mobile client on the device
    3. Interact with the device as needed
    4. Click Stop in the mobile client on the device

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
The goal of mobile testing is to ensure that your mobile application meets the requirements that guided its design and development. To help you meet this goal, IBM Mobile Test Workbench for Worklight implements the following stages in the testing process:
Configuration: Set up your test environment with IBM Mobile Test Workbench for Worklight and the SDKs for the mobile operating systems. Install the mobile test client on one or several mobile devices. Ensure that the mobile devices have connectivity through WiFi, 3G, or 4G, and add those devices to the test workbench.
* Application preparation: Import the application that you want to test into the test workbench, or use the device to upload the application under test to the test workbench.
* Test recording: Run the app from the mobile test client to start a recording. The recorder records all user interactions, sensor inputs, and application behavior, and uploads the recorded data to the test workbench, where it can be converted into a mobile test.
* Test editing: After recording, you can edit the test in the natural language editor. You can use the mobile data view to display and select UI elements from the recorded applications. You can replace recorded test values with variable test data, or add dynamic data to the test.
* Testing: You can deploy and run automated tests on multiple devices to ensure that the app matches the expected behavior that is defined in verification points. During the run, each verification point is checked and receives a pass, fail, or inconclusive status and functional data is recorded.
Evaluation of results:

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.1.0/com.ibm.worklight.mobtest.doc/topics/c_wl_mobile_test_ovw.html

QUESTION 14
Before deploying the application to production, the application developer wants to test the application on a physical device.

After connecting the device via a USB cable to the computer where the application will be tested, which of the following required actions must the application developer perform in order to test the application on a device?

A. Android:
   1. Enable "USB debugging" on the device.
   2. Right click on {Project_Name}/apps/{App_Name}/android folder to select Run As > Android Application
B. Android:
   1. Enable "USB debugging" on the device.
   2. Right click on the {Project_Name}{App_Name}Android project and select Run As > Android Studio Project
C. iOS:
   1. Obtain a developer certificate to sign applications.
   2. Obtain a provisioning profile that identifies the developer certificate, the device, and the applications which can be run on the device.
   3. Open the Project in Xcode, select the actual device in the Scheme menu, then click Run
D. iOS:
   1. Obtain a developer certificate to sign applications.
   2. Obtain a provisioning profile that identifies the developer certificate, the device, and the applications which can be run on the device.
   3. Set worklightSettings property to false in the application-descriptor.xml
   4. Open the Project in Xcode, select the actual device in the Scheme menu, then click Run

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:
A: On an android device connected to PC with USB debugging and use the Run As > android application command from Eclipse.

D: 1. According to Apple's requirements, your application must be signed with a developer identity in order for it to be installed and run on an iOS device.
2. A development provisioning profile must be created
3. Example of application-descriptor.xml file for IOS use:
<iphone bundleId="com.worklight.MyBankApp" version="1.0">
   <worklightSettings include="false"/>
   <security>
      <encryptWebResources enabled="false"/>
      <testWebResourcesChecksum enabled="false" ignoreFileExtensions="png, jpg, jpeg, gif, mp4, mp3"/>
   </security>
</iphone>
4. The Eclipse IDE does not support iOS application development. Therefore, you must transfer the application to Xcode, Apple IDE for iOS development.

If you are running a Mac version of Eclipse, right-click the iPhone or iPad environment folder and select Run As > Xcode project.

References:
http://stackoverflow.com/questions/26499847/worklight-6-2-app-on-android-device-always-thinks-theres-an-update
http://www.ibm.com/support/knowledgecenter/SSZH4A_6.2.0/com.ibm.worklight.dev.doc/dev/c_ibm_worklight_app_authentication_overview.html

QUESTION 15
The application developer wants to use the Mobile Browser Simulator to preview and test Worklight applications.

Which of the following application environments can the application developer preview on the Mobile Browser Simulator?

A. Android, iPhone, iPad, and Adobe Air
B. Android, iPhone, iPad, Windows Phone 8 and Desktop Browser web page
C. Android, iPhone, iPad, Blackberry 6 and 7, Blackberry 10, Windows Phone 8, and Mobile Web
D. Android, iPhone, iPad, Adobe Air, Blackberry 7, Blackberry 10, Windows Phone 8, and Windows 8 desktop and tablets

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
You can use the Mobile Browser Simulator to preview Worklight applications on Android, iPhone, iPad, BlackBerry 6 and 7, BlackBerry 10, Windows Phone 8, and mobile web application environments.

References:
http://www.ibm.com/support/knowledgecenter/SSZH4A_6.2.0/com.ibm.worklight.dev.doc/wl_studio_tools/topics/cmbswl.html?lang=en

QUESTION 16
An application developer is migrating a mobile hybrid application to support IBM Worklight Foundation V6.2 to release to the Application Store. The developer wants to reduce logging output to a minimum as the application will be running on mobile devices and no one will be accessing the logs.

How should the application developer minimize the application logging?

A. WL.Logger.off();
B. WL.Logger.ctx({pkg: null});
C. WL.Logger.ctx({'pkg: 'SERVER'})
D. WL.Logger.config({'level': 'FATAL'})

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Since version 6.2. WL.Logger.off is now a NOP. WL.Logger is always enabled. Use WL.Logger.config with {'level': 'FATAL'} to reduce verbosity.

References:
https://www.ibm.com/support/knowledgecenter/SSHS8R_7.1.0/com.ibm.worklight.apiref.doc/html/refjavascript-client/html/WL.Logger.html

QUESTION 17
An application developer has built a hybrid application using Worklight Studio and has added an Android environment to the application. The application developer has now built and deployed the Android environment to the Worklight Server.

In the application developer has correctly set up and configured their Android development environment, which of the following steps would they need to complete in order to the run the application on the Android emulator?

A. Right-click the apps/{Application_Name}/android folder
   Choose Run As -> Android Application
B. Right-click the apps/{Application_Name}/android folder
   Choose Run As -> Preview
C. Right-click the automatically generated Android Project ({Project_Name}{App_Name}Android Folder)
   Choose Run As -> Android Application
D. Right-click the automatically generated Android Project ({Project_Name}{App_Name}Android Folder)
   Choose Run As -> Preview

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
After you have your source code ready to deploy, simply right-click on your Android application and select Run as... > Build All and Deploy. A new folder should appear in your workspace with the title of your application: Name of our AppAndroid.
Next, right-click that project and select Run as.. > Android Application. If you have an actual Android phone connected via USB with developer mode enabled in the settings, the application will automatically run there, otherwise it will run in the existing AVD (Android Virtual Device). This will launch the emulator.

References:
http://www.ibm.com/developerworks/library/mo-aim1206-working-with-worklight-1/

QUESTION 18
An application developer is working on a hybrid application. The application developer needs to display a modal message to the user indicating that data is being loaded, while this data is retrieved from the server.

Which code snippet can the application developer use to display this message?

A. `WL.ModalMessage.show('Loading…');`

B. `WL.BusyIndicator.show('Loading…');`

C. `var busyInd = new WL.BusyIndicator (null, {text : 'Loading…'});`
   `busyInd.show();`

D. `var modalMsg = new WL.ModalMessage ('content', {text : 'Loading…'});`
   `modalMsg.show();`

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Example:
var busy;

function wlCommonInit(){
   busy = new WL.BusyIndicator ("content", {text : 'Loading Data Please Wait....', boxLength: 255.5});
   busy.show();

References:
http://stackoverflow.com/questions/20784146/ibm-worklight-6-1-how-to-customize-wl-busyindicators-height-and-width

QUESTION 19
An application developer wants to create a mobile pattern for reuse by other projects. The developer uses the UI Pattern to create the new template which generates the **pattern.html** file that needs to be edited.

In which directory can the application developer find the **pattern.html** file that was created?

A. apps
B. server
C. Web
D. WebContent

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
A folder with the name of your new pattern is added to the WebContent folder. This folder contains the pattern's resources.

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.2.0/com.ibm.worklight.dev.doc/com.ibm.rad.worklight.doc/topics/tcrtuipatterns.html

QUESTION 20
An application developer is building a hybrid application to be deployed to multiple environment types. The developer has built out a lot of the base code using the common environment and now wants to add support for platform specific environments.

When creating new environments inside of Worklight Studio for this application, from which environment categories will the application developer be able to choose platform-specific environments?

A. Phones, Tablets, Web

B. Phones, Tablets, Desktop

C. Mobile, Desktop, Web

D. Mobile, Browser, Desktop

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
IBM Worklight environments
You can build your mobile applications for different environments, such as:

* Mobile environments, which include iPhone, iPad, Android phones and tablets, BlackBerry 6 and 7, BlackBerry 10, and Windows Phone 8.
* Desktop environments, which include Adobe AIR and Windows 8.
* Web environments, which include Mobile web app and Desktop Browser web page.

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.1.0/com.ibm.worklight.dev.doc/devref/c_overview_projects_apps_envs_skins.html

QUESTION 21
An application developer needs to send data to an iOS native page that will use the data that the user captured on a new web page. To accomplish this task, the developer needs to verify that the native page is implemented as an Objective-C class that inherits from a specific iOS class.

What is the name of the class the application developer must verify that the native page should inherit from?

A. UIViewController

B. UIManagedDocument

C. UIDocumentInteractionController

D. UIDocumentInteractionControllerDelegate

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Adding the native features using Worklight NativePage API
Following the Worklight NativePage API documentation, native features are accessed by extending the UIViewController class. The instructions assume familiarity with using XCode, iOS programming and Objective-C.

Example: Integrating the native address book
1. In XCode, right-click Classes > New File. Select iOS > Cocoa Touch > Objective-C class. Click Next.
2. Following the definition in WCHybridAppProperties.js, in the Class field, name the class ContactsViewController. Ensure that Subclass of is set to UIViewController. Select With XIB for user interface. Click Next.
Etc.

References:
http://www.ibm.com/support/knowledgecenter/SSZLC2_7.0.0/com.ibm.commerce.starterstores.doc/concepts/csmmobileappworklighti.htm

QUESTION 22
An application developer is developing a project in Worklight Studio that has one adapter and a hybrid application that has Android and iPhone environments.

When the application developer builds the application using the 'Build All environments' command, what are the complete set of artifacts created?

A. A .war file, a .adapter file and a .wlapp file for all environments.
B. A .war file, a .wlapp file for all environments and a .wlapp file for common resources.
C. A .war file, a .wlapp file for all environments, a .wlapp file for common resources, a .wlapp for each environment and a native project for the target platform of each environment.
D. A .wlapp file for all environments, a .wlapp file for common resources, a .wlapp for each environment and a native project for the target platform of each environment.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
* A WAR file is created by Worklight Studio for every Worklight project, regardless of the number of apps it contains.
* If you build an entire app, a file called app-name.wlapp is created, containing the code and resources of all environments that are supported by your app. For example: myApp-all.wlapp.
* If you build an app only for specific environments, a file called app-name-env-version.wlapp is created per environment. For example: myApp-android-1.0.wlapp.

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.1.0/com.ibm.worklight.deploy.doc/devref/t_transporting_the_app.html

QUESTION 23
An application developer is working on a mobile application for a bank. The requirement is to globalize this application to display user messages, currency, date and time according to the locale and language settings on the device.

Which Worklight APIs can the application developer use to detect the specific device locale and language?

A. WL.Client.getLocale()
   WL.Client.getLanguage()
B. WL.Device.getLocale()
   WL.Device.getLanguage()
C. WL.App.getDeviceLocale()
   WL.App.getDeviceLanguage()
D. WL.G11N.getLocaleName()
   WL.G11N.getPrefferedLanguage()

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
The getLocaleName function gets the client current locale setting on the device.
The getPreferredLanguage function gets the current language of the client.

Note: The following listings and figures show the Cordova globalization API. Dojo is used to demonstrate the user interface.

Table 2. Listing 1: Using the Cordova globalization API
function onDeviceReady(){
  g11n = window.plugins.globalization;
}

References: https://www.ibm.com/support/knowledgecenter/SSZH4A_6.1.0/com.ibm.worklight.dev.doc/dev/c_globalization_in_ibm_worklight.html

QUESTION 24
An application developer needs to invoke Android native code from Javascript using Apache Cordova API.

Which method signature should the application developer use?

A. cordova.exec(Plug-inName, ActionName, FailureCallback, SuccessCallback, Parameters);
B. cordova.exec(Plug-inName, ActionName, SuccessCallback, FailureCallback, Parameters);

C. cordova.exec(FailureCallback, SuccessCallback, Plug-inName, ActionName, Parameters);

D. cordova.exec(SuccessCallback, FailureCallback, Plug-inName, ActionName, Parameters);

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Here is an example:

cordova.exec(function(winParam) {}, function(error) {}, "service",
        "action", ["firstArgument", "secondArgument", 42,
        false]);
The parameters explained in more detail:

1. function(winParam) {} - Success function callback. Assuming your exec call completes successfully, this function will be invoked (optionally with any parameters you pass back to it)
2. function(error) {} - Error function callback. If the operation does not complete successfully, this function will be invoked (optionally with an error parameter)
3. "service" - The service name to call into on the native side. This will be mapped to a native class. More on this in the native guides below
4. "action" - The action name to call into. This is picked up by the native class receiving the exec call, and, depending on the platform, essentially maps to a class's method.
5. [/* arguments */] - Arguments to get passed into the native environment

References:
http://docs.phonegap.com/en/2.3.0/guide_plugin-development_index.md.html

QUESTION 25
A mobile application developer intends to use JSONStore to encrypt local data of an application.

What does the application developer need to do to ensure data is encrypted?

When using:

A. WL.JSONStore.init(), pass a password in the options parameter.
B. WL.JSONStore.init(), pass what collections will be encrypted in the options parameter.
C. WL.JSONStore.documentify(), pass parameter encryption set to true.
D. WL.JSONStore.encrypt(), pass a user name and a password in the options parameter.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
WL.JSONStore.init
{Promise} init(collections, options)
Starts one or more collections.
Option parameters include options.password Optional - Password that is used to secure the contents of the store, by default there is no data encryption.

References:
https://www.ibm.com/support/knowledgecenter/SSHS8R_6.3.0/com.ibm.worklight.apiref.doc/html/refjavascript-client/html/WL.JSONStore.html%23init

QUESTION 26
A mobile application developer needs to modify the direct update interface of an application to set a custom message requested by a client. To accomplish this task, the application developer needs to use the **handleDirectUpdate** function.

How should the application developer implement this requirement?

A. wl_DirectUpdateChallengeHandler.handleDirectUpdate = function(directUpdateData, directUpdateContext) {

```
    var customDialogTitle = 'Custom Title Text';
    var customDialogMessage = 'Custom Message Text';
    var customButtonText = 'Custom Button Text';

    WL.SimpleDialog.show(customDialogTitle, customDialogMessage, [{
       text : customButtonText,
       handler : function() {
          directUpdateContext.stop();
       }
    }]);
};
```

B. wl_DirectUpdateChallengeHandler.handleDirectUpdate = function(directUpdateContext) {

```
    var customDialogTitle = 'Custom Title Text';
    var customDialogMessage = 'Custom Message Text';
    var customButtonText = 'Custom Button Text';

    WL.SimpleDialog.show(customDialogTitle, customDialogMessage, [{
       text : customButtonText,
       handler : function() {
          directUpdateContext.stop();
       }
    }]);
};
```

C. wl_DirectUpdateChallengeHandler.handleDirectUpdate = function(directUpdateContext) {

```
        var customDialogTitle = 'Custom Title Text';
        var customDialogMessage = 'Custom Message Text';
        var customButtonText = 'Custom Button Text';

        WL.SimpleDialog.show(customDialogTitle, customDialogMessage, [{
          text : customButtonText,
          handler : function() {
            directUpdateContext.init();
          }
        }]);
      };
D.  wl_DirectUpdateChallengeHandler.handleDirectUpdate = function(directUpdateData, directUpdateContext) {

        var customDialogTitle = 'Custom Title Text';
        var customDialogMessage = 'Custom Message Text';
        var customButtonText = 'Custom Button Text';

        WL.SimpleDialog.show(customDialogTitle, customDialogMessage, [{
          text : customButtonText,
          handler : function() {
            directUpdateContext.start();
          }
        }]);
      };
```

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
The handler function should have two parameters (directUpdateData, directUpdateContext) , and the directUpdateContext.start() function should be used.

The following example handleDirectUpdate function implements a custom message in the direct update dialog:

wl_directUpdateChallengeHandler.handleDirectUpdate = function(directUpdateData,directUpdateContext) {

 var customDialogTitle = 'Custom Title Text';
 var customDialogMessage = 'Custom Message Text';
 var customButtonText = 'Custom Button Text';

 WL.SimpleDialog.show(customDialogTitle, customDialogMessage, [{

```
   text : customButtonText,
   handler : function() {
     directUpdateContext.start();
   }
 }]);
};
```

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.2.0/com.ibm.worklight.dev.doc/dev/c_customizing_direct_update_ui_android_wp8_ios.html

QUESTION 27
An application developer wants to use Simple Data Sharing to pass data to another application that is currently being developed.

What must the application developer do in Worklight Studio to enable this capability for this hybrid application?

A. At application startup execute
    `WL.Client.setSharedToken ({key: appFamilyName, value: myValue});`
    specifying the Application Family Name as the value.
B. In the adapter.xml used to authenticate the user, add
    `<simpleDataSharing appFamilyName="" sharedCookies="" />`
    and specify the Application Family Name.
C. In the authenticationConfig.xml add
    `<simpleDataSharing appFamilyName="" sharedCookies="" />`
    and specify the Application Family Name.
D. In the design view of the application-descriptor.xml, select the environment and click "Add..." to add the Simple Data Sharing option, then specify the Application Family Name.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
To enable simple data sharing, you must modify the application descriptor.
Procedure
1. Add an Android or iOS environment.
2. Add the Simple Data Sharing option.
3. Enable the Simple Data Sharing option and specify an application family name.
Etc.

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.2.0/com.ibm.worklight.dev.doc/devref/t_enabling_simple_data_sharing_hybrid.html

QUESTION 28
An application developer has created a hybrid application and is in the process of adding a platform-specific environment for iPhone.

When the application developer adds the new environment for iPhone, what folders will automatically be created under the /apps/{Application_name}/ iphone folder once the platform environment has been built?

A. css, html, js, native, nativeResources
B. css, html, legal, native, nativeResources
C. css, images, js, native, nativeResources
D. css, images, legal, native, nativeResources

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
The app code can include CSS files to define the application view. Style sheets are placed under the \common folder (normally under \common\css) and optionally in the optimization and skin folders.
Worklight Studio creates a default thumbnail image when the app is created. You can override this default image (using the same file name) with a replacement image that matches your application. The file is in the \common\images folder of the app.
The app code can include JavaScript files that implement interactive user interface components, business logic and back-end query integration, and a message dictionary for globalization purposes. Scripts are placed under the \common folder (normally under \common\js) and optionally in the optimization and skin folders.

For Apple iOS platforms, the default splash images are stored as follows:
For iPhone, under iphone\native\Resources
For iPad, under ipad\native\Resources

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.1.0/com.ibm.worklight.dev.doc/devref/r_application_resources.html

QUESTION 29
An application developer intends to use Worklight iOS native APIs to develop a mobile application. A Worklight iOS native API is added to the Worklight project.

Which file does the application developer need to copy to the native iOS application project to connect to the Worklight server?

A. info.plist
B. worklight.plist
C. authenticationConfig.xml
D. application-descriptor.xml

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
The IBM Worklight native library and the client property file: The name and the format of this content depend on the environment.
for iOS:
The WorklightAPI folder defines the IBM Worklight native library.
The worklight.plist file is the client property file.

References:
http://www.ibm.com/support/knowledgecenter/SSZH4A_6.1.0/com.ibm.worklight.dev.doc/devref/r_development_guidelines_for_using_native_api.html

QUESTION 30
An application developer is developing a hybrid application that retrieves data from a back-end server using a HTTP adapter.

Which client-side implementation should the application developer use in order to invoke this adapter?

A. WL.Client.invokeAdapter ({
        adapter : 'adapterName' ,
        procedure : 'procedureName' ,
        parameters : [ ] ,
    }, { onSuccess : function(invocationResult){
        WL.Logger.log('Call successful');
    },
    onFailure: function(errorObject){
        WL.Logger.error('Error calling adapter: ' + errorObject.errors);
    }
});
B. WL.Client.invokeAdapter ({
        adapter : 'adapterName' ,
        procedure : 'procedureName' ,
        parameters : [ ] ,
    }, { timeout: 300000 })
    .then(function(invocationResult){
        WL.Logger.log('Call successful');
    }),
    .fail(function (errorObject){
        WL.Logger.error('Error calling adapter: ' + errorObject.errors);
    });
C. WL.Client.invokeProcedure ({
        adapter : 'adapterName' ,

```
        parameters : [ 'procedureName' ] ,
        onSuccess : function(invocationResult){
           WL.Logger.log('Call successful');
        },
        onFailure: function(errorObject){
            WL.Logger.error('Error calling adapter: ' + errorObject.errors);
        }
     });
D.  WL.Client.invokeProcedure ({
        adapter : 'adapterName' ,
        procedure : 'procedureName' ,
        parameters : [ ] ,
     }, { timeout: 300000 } )
     .then(function(invocationResult) {
        WL.Logger.log('Call successful');
     }),
     .fail( function (errorObject){
        WL.Logger.error('Error calling adapter: ' + errorObject.errors);
     });
```

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
The WL.Client.invokeProcedure method invokes a procedure that is exposed by an IBM Worklight adapter.
Syntax
WL.Client invokeProcedure (invocationData, options)

The WL.Client invokeProcedure function accepts the following JSON block of parameters:

```
{
  adapter: 'adapter-name',
  procedure: 'procedure-name',
  parameters: [],
  compressResponse: true/false
}
```

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.0.0/com.ibm.worklight.help.doc/apiref/r_wl_client_invokeprocedure.html

QUESTION 31

A client requires to change the default IBM splash image of an Android Worklight application.

How can the application developer implement this requirement?

A. Uncomment the autoHideSplash option in the initOptions.js file.
B. Replace splash.png located in android\native\res\drawable with the customized splash image.
C. Use WL.App.showSplashScreen API method and add a custom Java code to reload the application.
D. Save the customized image in the images folder and change configurations in the application-descriptor.xml file.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
You can change the default splash image that is located in the res/drawable folder and is named splash.png.

References:
http://www.ibm.com/support/knowledgecenter/SSZH4A_6.2.0/com.ibm.worklight.dev.doc/dev/c_splash_screen_android.html

QUESTION 32
An application developer is creating a WorkLight project that contains a Native API application. When creating the Native API application, the developer has provided the Project name as well as the native API name. The developer is now presented with an option to choose which specific environment they would like to create the Native API for.

Which environment types are the supported options for a valid Native API application that the application developer can choose from?

A. Android, BlackBerry10, iOS, JavaME
B. Android, iOS, JavaME, WindowsPhone8
C. Android, AdopeAir, iOS, WindowsPhone8
D. Android, BlackBerry10, iOS, WindowsPhone8

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Your native application requires the content of such a Native API application. This content depends on the selected mobile environment, and your native application requires it to use the corresponding IBM Worklight native API:
* The IBM Worklight Objective-C client-side API, if your Native API application is for the iOS environment
* The IBM Worklight Java™ client-side API, if your Native API application is for the Android environment
* The IBM Worklight Java client-side API, if your Native API application is for the Java Platform, Micro Edition (Java ME)

In Worklight 6.2 you can also use native C# API applications for Windows Phone 8

References:
http://www.ibm.com/support/knowledgecenter/SSZH4A_6.1.0/com.ibm.worklight.dev.doc/devref/r_development_guidelines_for_using_native_api.html
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.2.0/com.ibm.worklight.dev.doc/devref/c_app_desc_native_api_wp8.html

QUESTION 33
While developing an Android-based hybrid application, the application developer is required to use a pure Native Activity before navigating to a Web view.

Which interface should the application developer implement for the Activity that has the Web view?

A. Activity
B. CordovaActivity
C. NativeCustomActivity
D. WLInitWebFrameworkListener

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
public interface WLInitWebFrameworkListener
Implementing class will receive notification on Worklight web framework initialization.

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.2.0/com.ibm.worklight.apiref.doc/html/refjava-worklight-android-native/html/com/worklight/androidgap/api/WLInitWebFrameworkListener.html

QUESTION 34
An application developer intends to deliver a notification to a particular user with ID 'TestUser".

Which server call should the application developer use to deliver the notification?

A. var notification.target.userIds = ['TestUser'];
   sendMessage('TestApplication',notification);
B. var notification = {}
   notification.target = {}
   notification.target.userIds = ['TestUser'];
   sendMessage('TestApplication',notification);
C. var notification = {}

```
        notification.message.alert = "notification text";
        notification.target.userIds = ['TestUser'];
        sendMessage('TestApplication',notification);
D.  var notification = {}
        notification.message = {}
        notification.message.alert = "notification text";
        notification.target = {}
        notification.target.userIds = ['TestUser'];
        sendMessage('TestApplication',notification);
```

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
You can send a unicast notification to a particular user in the following way:
* Use the sendMessage method of the WL.Server class. The applicationId and notificationOptions parameters are mandatory.
* The userId(s) as an array in the notificationOptions.target.userIds object.

Example: function sendMessage(msg){
    var notificationOptions = {};
    notificationOptions.type = 0;
    notificationOptions.message = {};
    notificationOptions.message.alert = msg;
    notificationOptions.target = {};

References:
https://www.ibm.com/support/knowledgecenter/SSHS8R_6.3.0/com.ibm.worklight.dev.doc/devref/c_send_push_notifications.html http://
stackoverflow.com/questions/27701167/how-to-trigger-an-alert-once-receiving-push-notifications-using-broadcast-notifi

QUESTION 35
An application developer needs to create a new Worklight project in the current working directory by using the IBM Worklight Command Line Interface
(CLI). The developer needs to create the project with the name "WLProject".

To do so, which command should the application developer use?

A. wl new WLProject

B. wl create WLProject

C. wl new project WLProject

D. wl create project WLProject

Correct Answer: B

Section: (none)
Explanation

Explanation/Reference:
wl create [<name>]
This command creates a new Worklight project in the current working directory.

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.2.0/com.ibm.worklight.dev.doc/dev/r_wl_cli_commands.html

QUESTION 36
An IT company uses a native Android application to manage financial data. The company now wants to use the same application for iOS mobile devices. The application architect decided to use Worklight Foundation to generate a common User Interface for Android and iOS platforms.

The application developer is required to create this new common User Interface as a Web and add it to the existing Android application.

What steps should the application developer perform to add the new Web View to the existing Android application?

A. 1. Create a Worklight Native API application.
   2. Create a folder called "WebContent" in the root of the project.
   3. Add the Web view to the "WebContent" folder.

B. 1. Create a Worklight Native API application.
   2. Right click the {Application name} folder and click on "Add Hybrid Resources".
   3. Select the Web view and click OK.

C. 1. Create a Worklight project with a hybrid application with an Android environment.
   2. Copy the existing native code to the nativeResources folder of the Android environment.
   3. Add the Web view to the Android environment.

D. 1. Create a Worklight project with a hybrid application with an Android environment and add the Web view.
   2. Right click the Android folder of the Application and click on "Export Worklight Hybrid Resources".
   3. Add the Worklight hybrid resources to a new Native API application.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
IBM Worklight Application Framework helps you create hybrid applications that interact with back-end services.
You can add a Worklight web view into an existing native Android, iOS, or Windows Phone 8 application. For example, you can transform the application from pure native to hybrid.
Using either the Eclipse plug-in or the command-line interface, export the corresponding resources from an existing Worklight hybrid project.

References:

https://www.ibm.com/support/knowledgecenter/SSZH4A_6.2.0/com.ibm.worklight.dev.doc/dev/t_wl_native_hybrid_web.html

QUESTION 37
An application developer is required to use SMS notifications to send confirmation code to a mobile phone.

Which of the following is a valid entry in SMSConfig.xml that the application developer should use if the SMS gateway expects an HTTP post in the following format to forward SMS messages to a mobile phone:

http://hostname:13011/cgi-bin/sendsms?to=123456789&text=message
text&username=user&password=pwd

A. <gateway id="gatewayID" hostname="hostname" port="13011" programName="cgi-bin/sendsms"
   toParamName="to" textParamName="text"
       username="user" password="pwd">
     </gateway>
B. <gateway id="gatewayID" hostname="hostname" port="13011" programName="sendsms"
   toParamName="to" textParamName="text"
       username="user" password="pwd">
     </gateway>
C. gateway id="gatewayID" hostname="hostname" port="13011" programName="cgi-bin/sendsms"
   toParamName="to" textParamName="text"
     </gateway>
D. <gateway id="gatewayID" hostname="hostname" port="13011" programName="sendsms"
   toParamName="to" textParamName="text"
     </gateway>

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
* programName
Optional. The name of the program that the SMS gateway expects. For example, if the SMS gateway expects the following URI:
http://<hostname>:port/sendsms

then programName="sendsms"

* The <parameter> subelement is dependent on the SMS gateway. Each SMS gateway may have its own set of parameters. The number of
subelements is dependent on SMS gateway-specific parameters. If an SMS gateway requires the user name and password to be set, then

these parameters can be defined as <parameter> subelements.
Each <parameter> subelement has the following attributes:
name
value

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.2.0/com.ibm.worklight.deploy.doc/admin/r_sms_gateway_config.html

QUESTION 38
An application developer is using Unstructured Supplementary Service Data (USSD) on a mobile application that is configured to send a USSD message with the information that is going to be stored on the server. After the information is stored, the application developer needs to configure a custom response message for the application that will send the text "Success" to the user.

Which is the correct code implementation that the application developer can use to return the expected response message to the user?

A. WL.Server.sendUSSDMessage("Success", "text/plain", false))
B. WL.Server.sendUSSDResponse("Success", "text/plain", true))
C. WL.Server.createUSSDMessage("Success", "text/plain", false))
D. WL.Server.createUSSDResponse("Success", "text/plain", true))

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
To send back a response:
WL.Server.createUSSDResponse("This is my response", "text/plain", true))

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.2.0/com.ibm.worklight.dev.doc/devref/c_ussd_support.html

QUESTION 39
An application developer is using JSONStore in a mobile application to store purchase orders. The application allows sellers to modify the status of an order.

The JSONStore collection for the orders is defined in a global variable as follows:

```
var ordCollection = {
    orders: {
        searchFields: {ord_number: 'integer', status: 'string' }
    }
};
```

Which of the following JavaScript functions can the application developer use to change the status of an order in the local JSONStore?

A. ```
    var updateOrder = function(orderDoc, newStatus){
        orderDoc.json.status = newStatus;
        WL.JSONStore.update(ordCollection, orderDoc)
            .then(function (numberOfDocumentsUpdated) {
                // Handle success.
            })fail(function (errorObject) {
                // Handle failure.
            });
    };
    ```

B.  ```
    var updateOrder = function(orderDoc, newStatus){
        orderDoc.json.status = newStatus;
        var ordColInstance = WL.JSONStore.get(ordCollection);
        var numberOfDocumentsUpdated = ordColInsnance.update(orderDoc);
        if(  numberOfDocumentsUpdated >= 0 ){
            // Handle Success
        } else {
            // Handle Failure
        }
    };
    ```

C. ```
    var updateOrder = function(orderDoc, newStatus){
        orderDoc.json.status = newStatus;
        WL.JSONStore.get('orders').replace(orderDoc)
            .then(function (numberOfDocumentsReplaced) {
                // Handle success.
            })fail(function (errorObject) {
                // Handle failure.
            });
    };
    ```

D.  ```
    var updateOrder = function(orderDoc, newStatus){
        orderDoc.json.status = newStatus;
        var ordColInstance = WL.JSONStore.get('orders');
        var numberOfDocumentsReplaced = ordColInsnance.replace(orderDoc);
        if(  numberOfDocumentsReplaced >= 0 ){
            // Handle Success
        } else {
            // Handle Failure
        }
    };
    ```

Correct Answer: B
Section: (none)

Explanation

Explanation/Reference:
WL.JSONStore.get(collectionName)
Provides an accessor to the collection if the collection exists, otherwise it returns undefined.

Must reference OrdCOllection in the Get statement.

References:
https://www.ibm.com/support/knowledgecenter/SSHS8R_6.3.0/com.ibm.worklight.apiref.doc/html/refjavascript-client/html/WL.JSONStore.html

QUESTION 40
An application developer needs to detect when the mobile device has lost network connectivity. To do so, the developer has added a listener for event
`WL.Events.WORKLIGHT_IS_DISCONNECTED`.

When will the application developer be notified of the loss of connectivity if the heartbeat is not enabled?

A. After the event "resume" has been fired.
B. When `WL.Client.connect` is called and it fails to connect to the Worklight Server.
C. When `WL.Client.getEnvironment` is called and the device does not have network connectivity.
D. When `WL.Device.getNetworkInfo` is called and the device does not have network connectivity.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
WL.Device.getNetworkInfo() – This method is available for the Android and iOS environments.
A callback must be specified as a function parameter. The callback receives an object with the following properties:
isNetworkConnected – true/false
isAirplaneMode – true/false
carrierName – string. For example, AT&T or VERIZON.
telephonyNetworkType – string. For example, UMTS or GPRS.
isRoaming – true/false
networkConnectionType – mobile/WiFi
ipAddress – string

References:
https://developer.ibm.com/mobilefirstplatform/documentation/getting-started-7-0/data/working-offline/

QUESTION 41
An application developer intends to use Worklight Android native APIs to develop a performance intensive mobile application.

Which one of the following permissions in AndroidManifest.xml should the application developer use so the application can communicate with the Worklight Server?

A. <uses-permission android:name="android.permission.INTERNET"/>
B. <uses-permission android:name="android.permission.WAKE_LOCK"/>
C. <uses-permission android:name="android.permission.INSTALL_PACKAGES"/>
D. <uses-permission android:name="android.permission.CHANGE_WIFI_STATE"/>

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
The INTERNET permission is required by Worklight Quality Assurance to connect with the IBM Worklight Quality Assurance server.

References:
http://www.ibm.com/support/knowledgecenter/api/content/SSFRDS_6.0.0/com.ibm.mqa.uau.doc/topics/t_InstallingTheAndroidProductionLibraries.html

QUESTION 42
An application developer has been given the Geo-location service requirement of `most accurate and timely position information` for a mobile application.

Which code snippet will enable the application developer to correctly implement this requirement?

A.
```
WL.Device.startAcquisition (
        { Geo: WL.Device.Geo.Profiles.PowerSaving() }
    );
```
B.
```
WL.Device.startAcquisition (
        { Geo: WL.Device.Geo.Profiles.RoughTracking() }
    );
```
C.
```
WL.Device.startAcquisition (
        { Geo: WL.Device.Geo.Profiles.LiveTracking() }
    );
```
D.
```
WL.Device.startAcquisition (
        { Geo: WL.Device.Geo.Profiles.HighAccuracy() }
    );
```

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
LiveTracking()
Returns a profile to use for accurately tracking devices. The object returned can be freely modified. The object returned is:

```
{
  enableHighAccuracy:true,
 highAccuracyOptions: {
    iOSBestAccuracy: WL.Device.Geo.IOS_BEST_ACCURACY
 },
  maximumAge: 0
}
```

Incorrect:
Not A: PowerSaving()
Returns a profile to use for accurately tracking devices. The object returned can be freely modified. The object returned is:

```
{
  enableHighAccuracy:false,
  minChangeTime: 300000, //5 minutes
  minChangeDistance: 1000, // 1Km
  maximumAge: 300000  //5 minutes
}
```
Not B: RoughTracking()
Returns a profile which roughly tracks devices, representing. a trade-off between accuracy and power use.
Not D: There is no GEO function `HighAccuracy.`

Reference:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.1.0/com.ibm.worklight.apiref.doc/html/refjavascript-client/html/WL.Device.Geo.Profiles.html

QUESTION 43
An application developer is using Worklight skins to support multiple from factors on an Android based hybrid application that will run on phones and tablet devices. The developer built skins that modify the color and size of the text in the application based on the device that it is running on. To switch between them, the developer needs to modify a file in the Worklight project.

What is the name of the file that the application developer needs to modify to set the skins to apply at runtime?

A. main.js
B. skinList.json
C. skinLoader.js
D. initOptions.js

Correct Answer: C
Section: (none)

Explanation

Explanation/Reference:
To set which skin to apply at run time, implement the function getSkinName() in the file skinLoader.js.

References:
https://www.ibm.com/support/knowledgecenter/SSHS8R_6.3.0/com.ibm.worklight.dev.doc/devref/c_developing_application_skins.html

QUESTION 44
An application developer is developing a native iOS application. The application developer needs to call a web service to retrieve application data. In order to do that, the application developer will call an existing Worklight adapter that retrieves this data.

A. MyInvokeListener
B. WLAdapterDelegate
C. WLAdapterInvocationData
D. WLProcedureInvocationData

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
The WLProcedureInvocationData class contains all necessary data to call a procedure, including:
The name of the adapter and procedure to call.
The parameters that the procedure requires.

References:
https://www.ibm.com/support/knowledgecenter/SSZH4A_6.2.0/com.ibm.worklight.apiref.doc/html/refjava-worklight-android-native/html/com/worklight/wlclient/api/WLProcedureInvocationData.html

QUESTION 45
An application developer wants to use the Rich Page Editor to create and edit web pages for a hybrid application. The application developer wishes to use the Mobile Navigation view to manage the mobile views in the application.

Which action can the application developer perform inside the Mobile Navigation view?

A. Create a view by right clicking in the Mobile Navigation view and select Create.
B. Create a view by dragging a view object from the Palette view into the Mobile Navigation view.
C. Link a button to a mobile view by dragging a button from the Design view to a mobile view in the Mobile Navigation view.
D. Link a button to a mobile view by dragging a button from the Palette view to the mobile view in the Mobile Navigation view.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
You can link widgets, such as buttons or list view items, to mobile views or pages. You can drag a widget from the Design view in Rich Page Editor to a mobile view or page in the Mobile Navigation view. You can also drag mobile views or pages from the Mobile Navigation view to widgets in the Design view within Rich Page Editor.

References: http://www.ibm.com/support/knowledgecenter/SSHS8R_7.1.0/com.ibm.worklight.dev.doc/com.ibm.rad.worklight.doc/topics/cmobileviewswl.html