

FINAL EXAM Review

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Name the Components of the Mobile ECOSYSTEM:

- ▶ 1. Operators
- ▶ 2. Networks
- ▶ 3. Manufacturers
- ▶ 4. Devices
- ▶ 5. Platforms/Operating Systems
- ▶ 6. Application Frameworks
- ▶ 7. Applications
- ▶ 8. Services

Describe the role of Network in Mobile Testing:

- ▶ Network infrastructure is included into test planning process
- ▶ Ability to save and transfer information.
- ▶ Connection speed
- ▶ Connection types and Connectivity testing
- ▶ Mobile Protocol Stack Testing - using network simulators
- ▶ Performance - Load - Stress Testing
- ▶ Geo-Location API and services
- ▶ Compatibility Browsing Testing of Web Mobile Application
- ▶ Speed
- ▶ Geo location

What types of Mobile Devices you know besides the phones:

- ▶ Tablets
- ▶ GPS Navigators
- ▶ E-readers
- ▶ Cameras
- ▶ Google Glass
- ▶ Watches
- ▶ Music Players

List at least 4 “hot” Testing Devices currently on the Market (phones and tablets). Be specific with the Device Name, Maker, and OS version

- ▶ Apple iPad Air , iOS 7
- ▶ Google Nexus 7, Manufacturer: Asus, OS: Android 4.2 (Jelly Bean)
- ▶ Amazon Kindle Fire HDX, Manufacturer: Quanta Computer, Amazon Fire OS 3.0 "Mojito"
- ▶ Motorola Droid Maxx, Android 4.2.2 (Jelly Bean)
- ▶ Apple iPhone 5s, iOS 7
- ▶ Samsung Galaxy Note 3, Android 4.3 (Jelly Bean)
- ▶ Samsung Galaxy S4, Android 4.2.2 (Jelly Bean)
- ▶ HTC One, Android with HTC Sense
- ▶ LG G2, Android 4.2.2 (Jelly Bean)
- ▶ iPhone 5s/Apple/iOS 7.0.3
- ▶ Samsung Galaxy S4/Samsung/Android 4.3
- ▶ HTC One/HTC/Android 4.0
- ▶ iPhone5c/Apple/iOS 7.0.3
- ▶ iPad/7.0.3/Apple
- ▶ Sumsung Galaxy Note III/4.3

List at least 4 “hot” Testing Devices currently on the Market (phones and tablets). Be specific with the Device Name, Maker, and OS version

- ▶ iPhone 5s / 5c / 5 / 4s, iPad 4 / mini >>> iOS 7.0.3
- ▶ Samsung Galaxy S4, Galaxy Note >>> Android 4.1.2 (Jelly Bean)
- ▶ Sony Xperia Z1 >>> Android 4.1.2 (Jelly Bean)
- ▶ HTC One >>> Android 4.1.2 (Jelly Bean)
- ▶ Nokia Lumia 920, 1020 >>> Windows Phone 8

Name at least three Types of Platforms and provide at least four Platform's Examples:

- ▶ Open Source: Android, Tizen, Linux OS, Firefox OS
 - ▶ Proprietary: iOS, BB10, Windows Phone
 - ▶ Licensed: JME, BREW MP, LiMo.
-
- ▶ Open source: Android, Tizen, Linux, webOS
 - ▶ Proprietary: iOS, BB10, **Windows Mobile, Bada**
 - ▶ Licensed: JME, LIMO, BREW
-
- ▶ Licensed >>> BREW MP, LiMo (Linux Mobile)
 - ▶ Open Source >>> Android, Tizen, Firefox OS, Sailfish OS, Ubuntu Phone
 - ▶ Proprietary >>> iOS, Windows Phone, BlackBerry

Describe iOS using the pattern created in the Mobile Testing Class:

iOS 7:

- ▶ Applications: Music, Siri, Maps, FaceTime, AirDrop, Game Center, AirPlay
- ▶ Framework: Foundation, CoreMedia, System, GameKit, UIKit
- ▶ Cocoa Touch is implemented in Objective-C
- ▶ Hardware

- ▶ Source: Proprietary
- ▶ Platform: Unix
- ▶ Core Language: Objective C
- ▶ OS Architecture: Cocoa Touch
- ▶ Versions: iOS3,iOS4,iOS5,iOS6,iOS7
- ▶ Web browser: Safari
- ▶ Maker: Apple
- ▶ Carriers: Apple Stores, Cricket...
- ▶ Battery life: Advanced high

Describe iOS using the pattern created in the Mobile Testing Class:

iOS 7:

- ▶ Source >>> Proprietary system
- ▶ Platform >>> OS X, Darwin
- ▶ Core Language >>> Objective-C
- ▶ OS Architecture >>> 4 abstraction layers: Core OS, Core Services, Media layer, Cocoa Touch layer
- ▶ Version History >>> from iPhone OS 1.0 (Jun 2007) to iPhone OS 3.2.2 (Aug 2010), then from iOS 4.0 (Jun 2010) to iOS 7.0.3 (Oct 2013)
- ▶ Updates / Upgrades >>> via iTunes - wire or wireless OS updates, form the devices “Software Update” menu item
- ▶ Maker >>> Apple inc.
- ▶ Carriers >>> AT&T, Verizon, Sprint, T-Mobile
- ▶ Battery Life >>> Better compared to the Open source OSes due to the better compatibility of the hardware and software
- ▶ Browsers >>> Chrome, Safari, Atomic, Dolphin, Opera Mini, Perfect Web Browser, 360 Browser, Mercury, Puffin,

Describe three main components of Android Platform:

- ▶ Android Runtime: Core Java Libraries, Dalvik Virtual Machine
 - ▶ Linux Kernel
 - ▶ Libraries: Media SurfaceM, FreeType, Open GL, SQLite
-
- ▶ Linux Kernel
 - ▶ DVM (Dalvik Virtual Machine)
 - ▶ Core Java Libraries

List of Android Version: Number - Nickname - Year of Release

- ▶ Banana Split 1.2-1.3
- ▶ Android 1.5 Cupcake, April 2009
- ▶ Android 1.6 Donut, September 2009
- ▶ Android 2.0 Éclair, November 2009
- ▶ Android 2.2 Froyo, May 2010
- ▶ Android 2.3 Gingerbread, December 2010
- ▶ Android 3.0 Honeycomb, February 2011
- ▶ Android 4.07 Ice Cream Sandwich, October 2011
- ▶ Android 4.1 Jelly Bean, July 2012
- ▶ Android 4.2 Jelly Bean, November 2012
- ▶ Android 4.3 Jelly Bean, July 2013
- ▶ Android 4.4 KitKat, October 2013

Tell me about your favorite Browsers for Android and iPhone:

- ▶ Built-in Web Android
- ▶ Google Chrome - very handy since June 28, 2012
- ▶ Opera Mini
- ▶ Mozilla FireFox
- ▶ Maxthon

- ▶ Android: Opera Mini/Fast and Easy
- ▶ iPhone: Safari

What do you know about API? Give me example.

- ▶ API stands for Application Programming Interface. API is a set of frameworks that allow programmers to access application services by means of using programming languages.
- ▶ E.g. Google Maps, Twitter, Instagram, Facebook
- ▶ API is a set of instructions or protocol-like commands and information interchange snippets to provide easy interaction between different software or hardware components.
- ▶ Using API developers may concentrate on what to build, not how to build it.
- ▶ API could be also imagined as a heap of lego pieces that couldn't be modified themselves because of their hard plastic structure and pre-set colors, but one could build nearly everything combining them together in a various ways.

Give me example of Hybrid mobile application. Explain how it works.

- ▶ GenieTrack application has a Web and Native portions. Native portion is used mainly for tracking registered family members using the GPS of the mobile device.
- ▶ Hybrid app is a combination of native and web-based application development approaches. It utilizes the native app's speed and great system resources handling with the ability to work with dynamic web based data.
- ▶ Social Media applications downloadable from AppStore or Google Play are good examples of the hybrid apps.
- ▶ E.g. "Instagram" - it provides processing of the content dynamically downloaded from the web (images, video, audio, text and graphics), along with the interaction with the device's native APIs for camera and microphone, GPS-based location services etc.

Give at least one file extension's examples for the following categories:

- ▶ Audio File: .mp3, .wav, .wma, .ra
- ▶ Video File: .avi, .mov, .mp4, .swf
- ▶ Image File: .jpg, .jpeg, .tiff, .gif, .bmp, .psd
- ▶ Game File: .dem, .gam
- ▶ Executable Files: .exe, .apk, .jar, .ipa
- ▶ Web Files: .htm, .html, .asp, .css

Tell me what you know about Mobile Services:

- ▶ Mobile Services: Services available for users through their mobile device by utilizing either cellular or Wi-Fi connection and allowing users to authenticate themselves in the Cloud by using either OpenID or application specific credential verification systems.
- ▶ Auth, Server Logic, Notification, Logging, Data, Diagnostic, Scale.

Compare Android vs. iPhone Devices:

▶ Android	iOS
▶ Source: Open Source	Proprietary, License,
▶ OS Platform: Open Handset Alliance	Apple
▶ OS Platform: Linux OS	OS X - Unix
▶ Programming Lang. Java	Objective C
▶ Virtual Machine Dalvik VM	N/A
▶ Package Manager Google Play	iTunes, AppStore

How take screenshot with Android. Name all possibilities you know:

- ▶ Press and hold the Volume Down and Power buttons at the same time.
- ▶ Press and hold the Home button, then quickly press the Power button.
- ▶ Simultaneously press Home and Lock keys.
- ▶ Press and hold Back and Power buttons.
- ▶ Press and hold Back button and double-tap Home button.
- ▶ Device-specific apps.
- ▶ For-fee applications.
- ▶

How take screenshot with Android. Name all possibilities you know:

- ▶ Press and hold Power button + Volume Down button
- ▶ Tap and hold device's native "app switch" (multitasking) button for 2 seconds
- ▶ Press and hold Lock(Power) button until the power menu dialog appears. On some Samsung models there will be "Take Screenshot" button.
- ▶ Use DDMS tool (part of Android SDK)
- ▶ Use Android Debug Monitor (part of Android SDK)
- ▶ Use specific application installed on the device

What are the different ways you can install a Mobile Application?

- ▶ FOTA.
- ▶ Wi-Fi.
- ▶ Data cable/USB cable
- ▶ Bluetooth
- ▶ From memory card (Android)

What is the difference between Mobile Testing and Mobile Application Testing?

- ▶ Mobile Testing is a complete testing of mobile devices in System and Application levels.
- ▶ Mobile Application Testing deals only with features and multimedia part of mobile devices
- ▶ Application Store (Google Play, AppStore)
- ▶ Install .apk file from SD card using package installer on Android
- ▶ Upload the .apk file to Dropbox or Google Drive open the cloud storage from your mobile device and click to download the uploaded file
- ▶ Scan QR-code with the direct link to the application
- ▶ drag'n'drop the .ipa file on the iTunes sidebar with the device being connected. Install the .ipa via direct link

Create your list of the check-points while you explore New Mobile Device.

- ▶ Turn the device on and off.
- ▶ Check Navigation/Users Controls/Notifications (Scrolls, Tabs, Links, Gestural Movements)
- ▶ Look for Tutorial, explore each option
- ▶ Play with Home, Menu, Start, Audio Buttons
- ▶ Check Wi-Fi, Bluetooth, Internet Connectivity
- ▶ Check Features that related to the company product
- ▶ Check Company specific documentations (if any exist)
- ▶ Check Internet Resources for: Maker Site, Provider Site, Device Review Highlights, Device YouTube Highlights
- ▶ Connection to the Internet
- ▶ 2.Power consumption
- ▶ 3.Accelerometer
- ▶ 4.Geo-location

Share your professional Web Design Dictionary (at least 10 verbs and 10 nouns) that you will use, while creating Test Cases for Web Mobile Application:

▶ Verbs:

- ▶ verify
- ▶ press
- ▶ appear
- ▶ combine
- ▶ pan
- ▶ swipe
- ▶ rotate
- ▶ zoom
- ▶ activate
- ▶ display

Verbs:

- 1.Tap
- 2.Drag
- 3.Appear
- 4.Truncate
- 5.Re-direct
- 6.Expect
7. Drag
- 8.Align
- 9.Contain
- 10.Display

Nouns:

- functionality
- usability
- interruption
- performance
- button
- interface
- sound
- tone
- gesture
- rotation

Container

- 2.Accelerometer
- 3.Alignment
- 4.Body Content
- 5.Truncation
- 6.Splash Screen
- 7.Scroll bar
- 8.Radio button
- 9.Menu bar
- 10.Navigation panel

Tell me what kind of Helping Tools you are currently installed on your Device.


- ▶ Job Interview Prep
- ▶ Carat, MX Log Collector, Easy Cache Cleaner, Fing, Battery Dr. Saver, AndroSensor

Install on your device “TheVerge.com” application and create full Test Coverage List for the Homepage.

Test Case	Sub-Category	Description	Result
1.Installation		Verify that app can be installed successfully	App should be installed successfully.
2.Uninstallatio n		Verify that app can be uninstalled successfully	App should be uninstalled successfully.

BY DIETER BOHN 250 [Progress indicator]


POLICY & LAW 8

 New FCC head Tom Wheeler sets the tone: 'competition does not always flourish by itself'
Bryan Bishop | 55 Minutes Ago

MICROSOFT 52

 Microsoft reportedly narrows CEO shortlist to Ford, Nokia, Skype and Azure leaders
Sean Hollister | 1 Hour Ago

US & WORLD 31

 Toronto Mayor Rob Ford's staffer allegedly hired a hacker to delete

Please log Defect.

