Feedback — Week 6 Quiz

Help

You submitted this quiz on **Sun 25 Jan 2015 3:38 PM PST**. You got a score of **48.00** out of **52.00**. However, you will not get credit for it, since it was submitted past the deadline.

Question 1

Which of the following describes the purpose of the Android IntentService, according to the video:

Your Answer		Score	Explanation
☐ It provides a framework that offers a client-service interface that allows extended two-way conversations between one or more clients and the Service	✔	1.00	
☐ It provides a generalization of the HaMeR framework that encapsulates a Handler implemented within a Service and enables Activities to pass Messages to the Handler	✔	1.00	
☐ It provides a framework for invoking remote method calls synchonronous and asynchronously	✔	1.00	
☑ It provides a framework for programming Started Services that concurrently process commands expressed as Intents	✔	1.00	
Total		4.00 / 4.00	

Question Explanation

Please see video S2-M1-P4 Android IntentService

Question 2

Which of the following are key differences between an IntentService and a regular Service, according to the video:

Your Answer		Score	Explanation
☑ An IntentService stops itself automatically when there are no more Intents to process, whereas a regular Service must stop itself manually.	✔	1.00	
☐ A regular Service processes Intents sent by clients in a background Thread, whereas an IntentService processes requests in the UI Thread	✔	1.00	
☑ An IntentService processes Intents sent by clients in a background Thread, whereas a regular Service processes requests in the UI Thread	✔	1.00	
☐ A regular Service stops itself automatically when there are no more Intents to process, whereas an IntentService must stop itself manually	✔	1.00	
Total		4.00 / 4.00	

Question Explanation

Please see video S2-M1-P4 Android IntentService

Question 3

Which of the following are reasons for deploying a Service to run in a different process than its clients, according to the video:

Your Answer		Score	Explanation
☐ It optimizes communication between the client and the Service	✔	1.00	
☐ It allows the Service to invoke Java Native Interface (JNI) methods	✔	1.00	
☑ It may make the application more robust if Service failures don't affect the client	✔	1.00	
☑ To allow the Service to be shared by multiple applications	✔	1.00	

Total		4.00 / 4.00

Question Explanation

Please see video S2-M1-P5 Activity and Service Communication

Question 4

Which of the following are correct examples of the patterns implemented by Android communication mechanisms, according to the video:

Your Answer		Score	Explanation
☑ Android Messengers can be used to implement the Active Object pattern	✔	1.00	
☑ The IntentService implements the Command Processor pattern	✔	1.00	
☑ The Android Activity Manager implements the Activator pattern	✔	1.00	
☐ The IntentService implements the Broker pattern	✔	1.00	
Total		4.00 / 4.00	

Question Explanation

Please see video S2-M1-P5 Activity and Service Communication

Question 5

Which of the following statements describe the Android Messenger communication mechanism, according to the video:

Your Answer		Score	Explanation
☑ A Messenger is a generalization of the Android HaMeR	✔	1.00	

framework

☐ A Messenger is a generalization of the Android AsyncTask framework	✔	1.00
☑ A Messenger can be used for communicating to or from both Started and Bound Services	✔	1.00
☐ A Messenger can only be used for communicating to or from Started Services	✔	1.00
Total		4.00 / 4.00

Question Explanation

Please see video S2-M1-P6 Service to Activity Communication with Android Messenger

Question 6

Which of the following are true about storing data to external storage on Android?

Your Answer		Score	Explanation
☑ Older versions of Android do not have secure external storage for apps and thus private data should not be stored there	✔	1.00	
☐ App data stored on external storage cannot be deleted by another app	✔	1.00	
☐ On newer versions of Android, the external storage directory has per-app private storage and thus it is not important to worry about storing sensitive data there	✔	1.00	
☐ On all versions of Android, the external storage directory is private	✔	1.00	
Total		4.00 / 4.00	

Question Explanation

Please see video Section 2 Module 2 Part 7: Avoid Storing Sensitive Data in Public Locations

Question 7

Which of the following are true about storing data on Android?

Your Answer		Score	Explanation
☐ On all versions of Android, it is impossible to store data insecurely in an app's private data storage	✔	1.00	
☐ File permissions are managed centrally by the PackageManager service and not of concern to app developers	✔	1.00	
☑ On some versions of Android, it is possible to store data insecurely in an app's private data storage	✔	1.00	
☐ File permissions do not affect the security of data stored in an app's private data storage	✔	1.00	
Total		4.00 / 4.00	

Question Explanation

Please see video Section 2 Module 2 Part 8: Risks of Insecure File Permissions

Question 8

Which of the following are true of the key-based security vulnerability presented in the security vulnerability walkthrough?

Your Answer		Score	Explanation
☐ The security vulnerability would only be detectable through extensive testing	✖	0.00	
☐ The security vulnerability resulted from string manipulation that did not consider edge cases	✖	0.00	

☑ The security of the data was not obvious from the design of the key-based security logic abstraction	✔	1.00
☐ The security of the data should not have been determined by a key-based security logic system	✖	0.00
Total		1.00 / 4.00

Question Explanation

Please see video Section 2 Module 3 Part 1: Security Vulnerability Walkthrough

Question 9

Which of the following are true of security vulnerabilities?

Your Answer		Score	Explanation
☑ Code complexity and abstraction layering make security flaws hard to spot	✔	1.00	
☐ Security vulnerabilities only exist because of flaws in the Android platform	✔	1.00	
☐ All security vulnerabilities are obvious when analyzing an app's source code	✔	1.00	
☐ Only inexperienced developers write code with security vulnerabilities	✔	1.00	
Total		4.00 / 4.00	

Question Explanation

Please see video Section 2 Module 3 Part 0: The Challenge of Secure Coding

Question 10

Which of the following are important characteristics of secure abstractions?

Your Answer		Score	Explanation
☑ Security flaws can be identified at compile time	✔	1.00	
☐ Security is not affected by abstraction design	✔	1.00	
☑ Clarity with respect to security	✔	1.00	
☑ Proper usage is obvious	✔	1.00	
Total		4.00 / 4.00	

Question Explanation

Please see video Section 2 Module 3 Part 2: Principles of Secure Abstractions

Question 11

Which of the following are correct statements regarding an application's security?

Your Answer		Score	Explanation
☐ In general, it is best to decide the security of different types of data during application design and not to dynamically analyze data to attempt to decide its security	✖	0.00	
☑ Dynamic analysis of data leads to complex logic and potential security vulnerabilities	✔	1.00	
☐ It is best to dynamically analyze data to determine the appropriate security level for it	✔	1.00	
☑ Dynamic analysis of data leads to potential attacks from outsiders through data manipulation	✔	1.00	
Total		3.00 / 4.00	

Question Explanation

Please see video Section 2 Module 3 Part 3: Avoid Coupling Data & Security State

Question 12

Which of the following are true about building more secure abstractions?

Your Answer		Score	Explanation
☐ The default security behavior of logic should match the security level of the most frequent use case	✔	1.00	
☐ The naming conventions of the abstractions should not indicate security levels in order to avoid tightly coupling naming to logic	✔	1.00	
☑ The default security behavior of logic should almost always be secure	✔	1.00	
☑ The naming conventions in the abstractions should clearly indicate important security information	✔	1.00	
Total		4.00 / 4.00	

Question Explanation

Please see video Section 2 Module 3 Part 4: Build Abstractions that are Hard to Use Insecurely

Question 13

Which of following are true about security state?

Your Answer		Score	Explanation
☐ The types used to store security state are not important	✔	1.00	
☐ Integer flags are an effective way of representing important security state	✔	1.00	
☑ Enums are often a better choice for representing security state than integers	✔	1.00	
☑ You should represent security state with types that allow as many security problems as possible to be detected at compile time	✔	1.00	

Total	4.00 / 4.00

Question Explanation

Please see video Section 2 Module 3 Part 5: Bound & Strongly Type Security State