Feedback — Week 3 Quiz

Help Center

You submitted this quiz on **Thu 9 Apr 2015 10:01 PM PDT**. You got a score of **41.00** out of **41.00**.

Question 1

Which of the following are benefits of the AsyncTask framework compared with the HaMeR framework, according to the videos in week #3

Your Answer		Score	Explanation
☑ The tighter integration of classes in the AsyncTask framework simplifies its usability by reducing the "surface area" of the API it exposes to applications.	✔	1.00	
☐ The looser integration of classes in the AsyncTask framework simplifies its usability by reducing the "surface area" of the API it exposes to applications.	✔	1.00	
☐ Users of the AsyncTask framework must have a deep understanding the patterns that guide the structure of and interactions between the classes it uses internally.	✔	1.00	
☑ The AsyncTask framework doesn't require concurrent application developers to explicitly manipulate Threads, Handlers, Messages, or Runnables.	✔	1.00	
Total		4.00 / 4.00	

Question Explanation

Please see week #3 video on the AsyncTask Framework

Question 2

Which of the following are hook methods invoked by a template method in the AsyncTask framework, according to the videos in week #2

Your Answer		Score	Explanation
☑ doInBackground()	✔	1.00	
☐ run()	✔	1.00	
☑ onCancelled()	✔	1.00	
☑ onPostExecute()	✔	1.00	
☐ isCancelled()	✔	1.00	
☐ execute()	✔	1.00	
Total		6.00 / 6.00	

Question Explanation

Please see week #3 video on the AsyncTask Framework

Question 3

Which of the following patterns are commonly used by black-box frameworks, according to the videos in week #3

Your Answer		Score	Explanation
☐ Template Method	✔	1.00	
☑ Strategy	✔	1.00	
☐ State	✔	1.00	
☑ Decorator	✔	1.00	
Total		4.00 / 4.00	

Question Explanation

Please see the week #3 video on Black-box and White-box Frameworks with Android

AsyncTask

Question 4

Which of the following are ways in which the AsyncTask framework extends the Template Method pattern, according to the videos in week #3

Your Answer		Score	Explanation
☐ It decouples interface from implementation so the two can vary independently	✔	0.75	
☑ It allows hook methods to run in different threads of control	✔	0.75	
☐ It allows subclasses to override hook methods	✔	0.75	
☐ It defers some steps in its concurrent processing algorithm to a subclass	✔	0.75	
Total		3.00 / 3.00	

Question Explanation

Please see the week #3 video on Black-box and White-box Frameworks with Android AsyncTask

Question 5

Which of the following frameworks are used internally by the Android AsyncTask framework according to the videos in week #3

Your Answer		Score	Explanation
☐ The Android Activity framework	✔	1.00	
☑ The Java Executor framework	✔	1.00	
☑ The Android HaMeR framework	✔	1.00	
☐ The Android IntentService framework	✔	1.00	

Total	4.00 / 4.00

Question Explanation

Please see the week #3 video on Black-box and White-box Frameworks with Android AsyncTask

Question 6

Which of the following is the default behavior of AsyncTasks in recent versions of Android, according to the videos in week #3

Your Answer		Score	Explanation
☑ The Android HaMeR framework is used internally by the AsyncTask framework to pass Messages from a background thread to the UI thread.	✔	1.00	
☑ An instance of Java ThreadPoolExecutor is used to execute each AsyncTask object	✔	1.00	
☑ A single background thread in each process runs the all doInBackground() methods of AsyncTasks	✔	1.00	
☐ A pool of threads run multiple AsyncTasks concurrently within a process to take advantage of multi-core chipsets	✔	1.00	
Total		4.00 / 4.00	

Question Explanation

Please see the week #3 video on Black-box and White-box Frameworks with Android AsyncTask

Question 7

Which of the following are benefits of white-box frameworks compared to black-box frameworks, according to the videos in week #3

Your Answer		Score	Explanation
☑ They are easier to develop since their their design needn't anticipate a wide range of use cases	✔	1.00	
☐ They are easier to configure and use since they are customized via self-contained plugins	✔	1.00	
☐ They are easier to use since application developers must understand which hook methods to override	✔	1.00	
☐ They are easier to use since they apply common Gang-of-Four patterns	✔	1.00	
Total		4.00 / 4.00	

Question Explanation

Please see the week #3 video on Black-box and White-box Frameworks with Android AsyncTask

Question 8

Which of the following are the different ways of concurrently downloading an image shown in the videos from week #3

Your Answer		Score	Explanation
☑ Executing AsyncTasks	✔	1.00	
☑ Sending and Handling Messages	✔	1.00	
☑ Posting and processing Runnables	✔	1.00	
☐ Invoking remote method calls via the Binder	✔	1.00	
Total		4.00 / 4.00	

Question Explanation

Please see week #3 video on Evaluating Android Concurrency Frameworks

Question 9

Which of the following are benefits of the AsyncTask framework relative to the HaMeR framework, according to the video from week #3

Your Answer		Score	Explanation
☐ It incurs low overhead from synchronization, context switching, and data movement costs	✔	1.00	
☑ It is easy to use for both simple and complex concurrent applications	✔	1.00	
☐ It enables interactions between multiple background threads	✔	1.00	
☑ It enables relatively transparent scalability via its use of Java Thread Pool Executor	✔	1.00	
Total		4.00 / 4.00	

Question Explanation

Please see week #3 video on Evaluating Android Concurrency Frameworks

Question 10

Which of the following best describe ways in which Threads in the AsyncTask and HaMeR concurrency frameworks communicate according to the videos in week #3

Your Answer		Score	Explanation
☐ Background Threads in HaMeR framework implicitly communicate with UI Thread	✔	1.00	
☑ Background Threads in AsyncTask framework implicitly communicate with UI Thread	✔	1.00	
☐ Background Threads in AsyncTask framework explicitly communicate with UI Thread	✔	1.00	

☑ Background Threads in HaMeR framework explicitly communicate with UI Thread	✔	1.00
Total		4.00 / 4.00

Question Explanation

Please see week #3 video on Evaluating Android Concurrency Frameworks