CMSC 436 Quiz #8

April 11, 2013

Name: _____   **Directory ID**: _____

Problem 1

To create an App Widget, you need an AppWidgetProviderInfo object and AppWiget-Provider class implementation. What are described or defined in AppWidgetProviderInfo and AppWigetProvider?[4pts]
Solution:
AppWidgetProviderInfo describes the metadata for an App Widget, such as the App Widget's layout, update frequency, and the AppWidgetProvider class. This should be defined in XML. AppWidgetProvider defines the basic methods that allow you to programmatically interface with the App Widget, based on broadcast events. Through it, you will receive broadcasts when the App Widget is updated, enabled, disabled and deleted.

Problem 2

The most important AppWidgetProvider callback is onUpdate(). When would it be called? Discuss the differences in behavior between the situations where a configuration Activity is declared and where one is not.[4pts]
Solution:
This is called to update the App Widget at intervals defined by the updatePeriodMillis attribute in the AppWidgetProviderInfo. This method is also called when the user adds the App Widget, so it should perform the essential setup, such as define event handlers for Views and start a temporary Service, if necessary. However, if you have declared a configuration Activity, this method is not called when the user adds the App Widget, but is called for the subsequent updates.

Problem 3

Determine the correctness of following statements. [2pts]

✓	✗	Description
■	☐	Because the AppWidgetProvider class extends BroadcastReceiver, your process is not guaranteed to keep running after any of the callback methods have returned.
■	☐	When an App Widget uses a configuration Activity, it is the responsibility of the Activity to update the App Widget when configuration is complete