Lab 3 – Saving Activity State

CS235AM, Intermediate Mobile Application Development: Android

Introduction

This lab will help you understand Android activity life-cycle and give you practice saving activity state. The main concepts you will apply will be:

- Using the `OnSavedInstanceState` callback to store state using a `Bundle` object
- Retrieving activity state in `OnCreate`
- Serializing and deserializing objects using the `XmlSerializer` class
- Using an `EditText` widget

Requirements

Part 1 – Tutorial: Activity Lifecycle

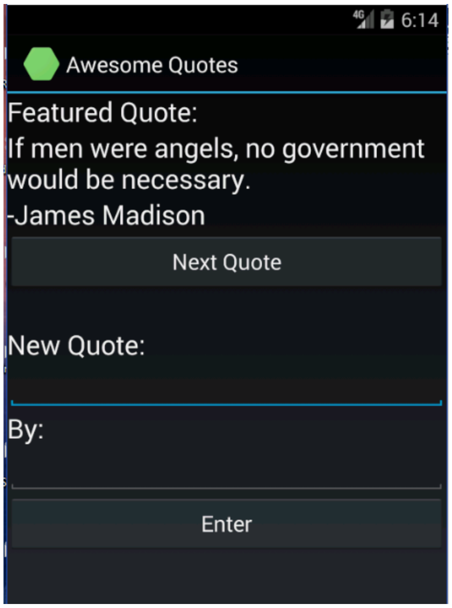
Complete the Xamarin walkthrough, Saving Activity State, which is part of the Activity Lifecycle tutorial, which was also the required reading this week.

Part 2 for Assignment Group A – The "Awesome Quote" App

- Make an app that displays quotations. Preload the app with a collection of quotes (at least four).
  - Show the quote and who said it in two separate TextView widgets.
  - Add a "Next Quote" button that causes the next quote to be displayed when it is tapped.
- Users will be able to add quotes of their own that will be added to the collection of quotes.
  - Add two EditText widgets and a button for entering quotes.
  - When a new quote is entered, show it in the TextViews at the top.
  - Clear the EditText widgets after the edit button is tapped to enter the new quote.
- Implementation requirements:
  - Use the XmlSerializer class to save the object of the above class.
  - A file containing a class that is preloaded with hard-coded quotes and that can have more quotes added will be provided.
- See screen-shots of the UI below:

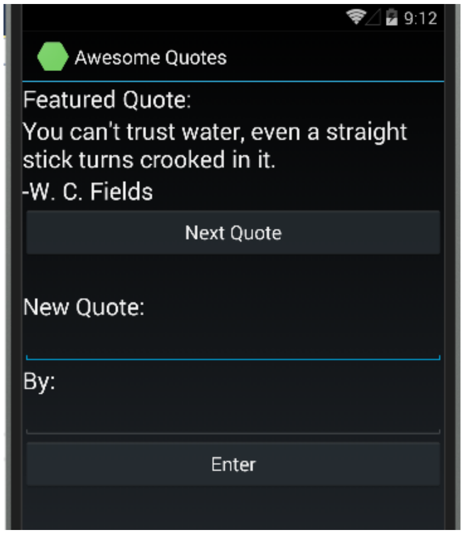
Written by Brian Bird, Lane Community College, Summer 2014. Revised Spring 2017

- When the app is first started, it will display the first quote in the list.



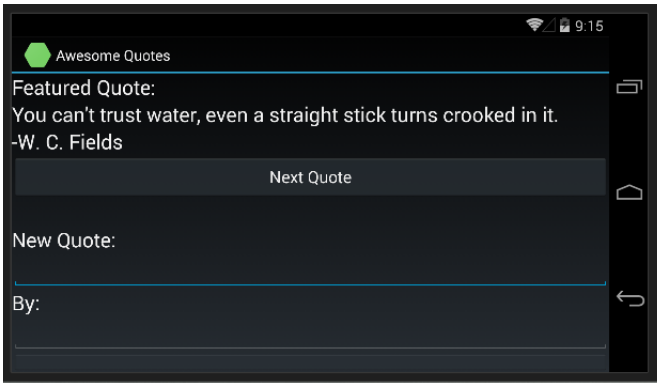
If men were angels, no government would be necessary.
-James Madison

- Clicking the “Next Quote” button will show the next quote in the list.



You can't trust water, even a straight stick turns crooked in it.
-W. C. Fields

- Rotating the device should not cause the first quote to be shown again; it should keep showing the current one, even if it's a new one that was entered by the user.



Featured Quote:
You can't trust water, even a straight stick turns crooked in it.
-W. C. Fields

Submission to Moodle

Beta Version

Post the following to the Beta + Code Review Forum:

1) For part 1: A document containing screen-shots of the app with each screen-shot labeled. (Please use .docx or .pdf format.)
2) For part 2: A zip file containing your app's Visual Studio solution folder. (Make your solution smaller by deleting the *obj* and *bin* folders.)
   Or, optionally, a link to a repository containing your solution source code. You can put the link on the same document with the report on your exercise from part 1.
3) A copy of your lab instructions (so the lab partner who reviews your work will know what your requirements were).

Production Version

1. Items 1 and 2 above, but revised as needed.
2. The code review of your work (the one done by your lab partner) with the second column ("Release") completed by you.

Note: Find out if there is some replacement for OnNonConfigurationChange