Lab 3 – Saving Activity State, Group B

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 and actvitiy's `OnCreate` method
- Serializing and deserializing objects using the .NET `XmlSerializer` class
- Using an Android `EditText` widget in a UI layout

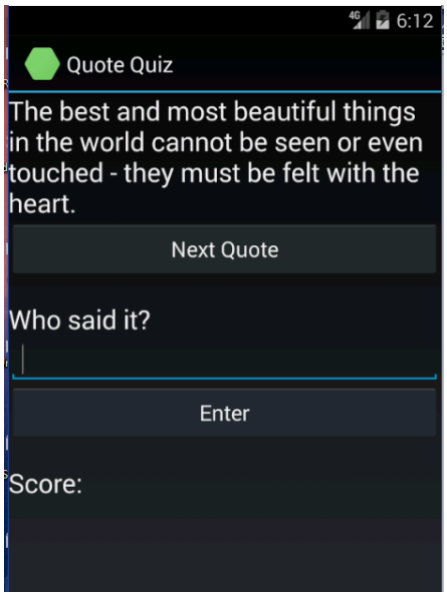
Requirements

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 B – The "Who Said It" Quiz App

- Use the starter file posted on Moodle. The starter contains:
  - A quote bank class, preloaded with a collection of quotes.
  - A MainActivity and layout that show a quote.
  - Add a "Next Quote" button that causes the next quote to be displayed when it is tapped.
- Modify the starter app to create a quiz app that will show the user a quote, and ask them who said it, as shown below:



    - The user will be able to type the name of the person and then click enter. The app will show whether they are right or wrong. If they are wrong it will show the right answer.
    - All the questions can be hard-coded.
    - Rotating the device should not cause a new quote question to be shown; it should keep showing the same one.
- The app will display a count of right and wrong answers.
    - There will be a button to reset the count and start the quiz over.
    - The count of right and wrong answers will not be lost when the device is rotated.
    - A file containing a class that is preloaded with hard-coded quotes and that can have more quotes added will be provided.

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.