Programming Assignment #1

CIS 436 – Mobile Application Development – Winter 2019
University of Michigan - Dearborn
Prof. John P. Baugh

Due: March 8, 2019 at 11:59 p.m.
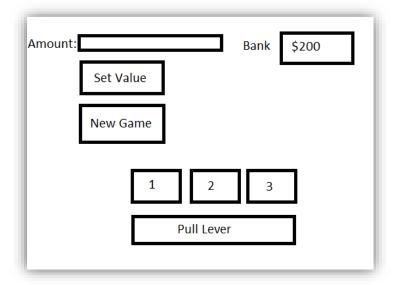
Points: _____ / 100

Objectives

- To create a basic user interface
- To create event listeners and handlers for UI components
- To create a basic test plan

Instructions

You are charged with the responsibility of creating a basic app, giving the user the ability to *play a slot machine*. It is assumed you will use good software engineering practice throughout, including the following:

- Use comments (useful comments), including your name, instructor's name, class you are in, and which project this is at the top of your Main Activity Java file
- Give appropriate ids to your widgets
    - Button1, button2, etc. will result in loss of points

You should ensure your program and assignment adhere to the following (In fact you could use the following, keeping the above instructions in mind also, as a check list):

- You will allow the user to enter any numeric value from **100 to 500 (inclusive)** into the editable text field
    - You must make sure only the **numeric** soft keyboard appears when the user focuses on the editable text field
    - You must also make sure that a Toast displays indicating an error if the values are not within the range 100 to 500 (inclusive.)
- Once the user enters the numeric value, they should be able to click a button labeled **Set Value**, which will cause both the button and the editable text field to become deactivated (i.e, you cannot type in the text field and/or click the button)
- There should also be a **New Game** button, which will reset the bank to 0, and disable the slot machine controls until the user selects a new amount and presses **Set Value**
- Playing the Game:
    - Each time the user presses the **Pull the Lever** button, $5 is removed from his/her account
    - Three TextView widgets display a number from 1 through 5 (inclusive
        - Hint: See the Java Class Framework's **Random** class
        - https://docs.oracle.com/javase/7/docs/api/java/util/Random.html
    - If **none** of the numbers match, the user doesn't get anything
    - If **two** of the numbers match, the user gets $10
    - If **three** of the numbers match:
        - If the number that matches is less than 5, the user gets $40
        - If the number is 5 through 8 (inclusive), the user gets $100
        - If the number is 9 in all three slots, the user gets $1000
- If the user's bank ever equals or exceeds $1000, a Toast should pop up and tell the user they have cleared out the slot machine, and the program should then reset (the same as if the user had clicked **New Game**
- If the user's bank ever equals 0, the game should display a Toast that tells the user they've lost all their money, and the game should reset (as if the user had clicked **New Game**)
- You must create a basic test plan for **each** of the above features and fill it in
    - Use the example text plan on Canvas
    - Use Microsoft Excel (preferred), or Apache OpenOffice Calc, or LibreOffice Calc for the workbook with the Test Plan
        - If you use OpenOffice Calc or LibreOffice Calc, please generate a PDF and turn that in – do not turn in the native formats of these open source programs

Deliverables

Zip your entire Android project, with the **test plan stored at the top level of the project**

Upload the entire zip file to Canvas on or before the due date