Assignment 3 – Scarne's Dice

Goals

- Enable event-driven operations
- Load images using Picasso

Required naming convention *(replace # with the current assignment number)*

- **Application Name**
  - *A#*
- **Company Domain**
  - *firstname.lastname.itp341*
- **Package Name**
  - *Itp341.lastname.firstname.A#*

Game Rules

- Scarne's Dice is a turn-based dice game where two players score points by rolling a die
- Player 1 rolls a die
  - If roll is a 2, 3, 4, 5, or 6
    - The rolled value is added to current turn score (initially this begins at 0 points)
    - Player 1 can either roll again to increase the turn score, or have their current turn score added to their total points and end their turn
  - If roll is a 1
    - Player 1 loses any points accumulated during the rolling in their current turn and their turn ends
- Player 2's turn (process repeats)
- The winner is the first player to reach (or exceed) 100 points for their total score.

Requirements

- Create new Android Application Project
  - Min SDK: API 27
  - Follow default prompt, but make sure to choose **Empty Activity**.
- UI
  - Create a layout based on layout below (as shown in fig 1).
  - For full credit closely match the UI. *(Padding/Margin may be approximated)*
- Images

    - All images will be loaded dynamically at runtime via Picasso. The exact URLs are provided below
    - We will go over image loading during lecture in week 3. If you want a head start, take a look at the great documentation
- Code
    - Load
        - When the screen loads, download and load the blank die image
    - Roll button
        - Allow current player to roll
        - Load die image based on player's color and the die image
        - If roll is 1, switch players, reset turn score, and load blank image
        - If 2-6, increase turn score
    - Hold button
        - Add turn score to current player score
        - Switch players
        - Load blank image
    - Reset
        - Reset all scores
        - Load blank image
- Test app on Pixel

URLs

- Blank die
  http://www-bcf.usc.edu/~parke/itp341/a3/blank_die.png
- Red die
  http://www-bcf.usc.edu/~parke/itp341/a3/red_die_1.png
  http://www-bcf.usc.edu/~parke/itp341/a3/red_die_2.png
  http://www-bcf.usc.edu/~parke/itp341/a3/red_die_3.png
  http://www-bcf.usc.edu/~parke/itp341/a3/red_die_4.png
  http://www-bcf.usc.edu/~parke/itp341/a3/red_die_5.png
  http://www-bcf.usc.edu/~parke/itp341/a3/red_die_6.png
- Blue die
  http://www-bcf.usc.edu/~parke/itp341/a3/blue_die_1.png
  http://www-bcf.usc.edu/~parke/itp341/a3/blue_die_2.png
  http://www-bcf.usc.edu/~parke/itp341/a3/blue_die_3.png
  http://www-bcf.usc.edu/~parke/itp341/a3/blue_die_4.png
  http://www-bcf.usc.edu/~parke/itp341/a3/blue_die_5.png
  http://www-bcf.usc.edu/~parke/itp341/a3/blue_die_6.png

Extra Credit:

- Enable the ability to play the computer instead of another player

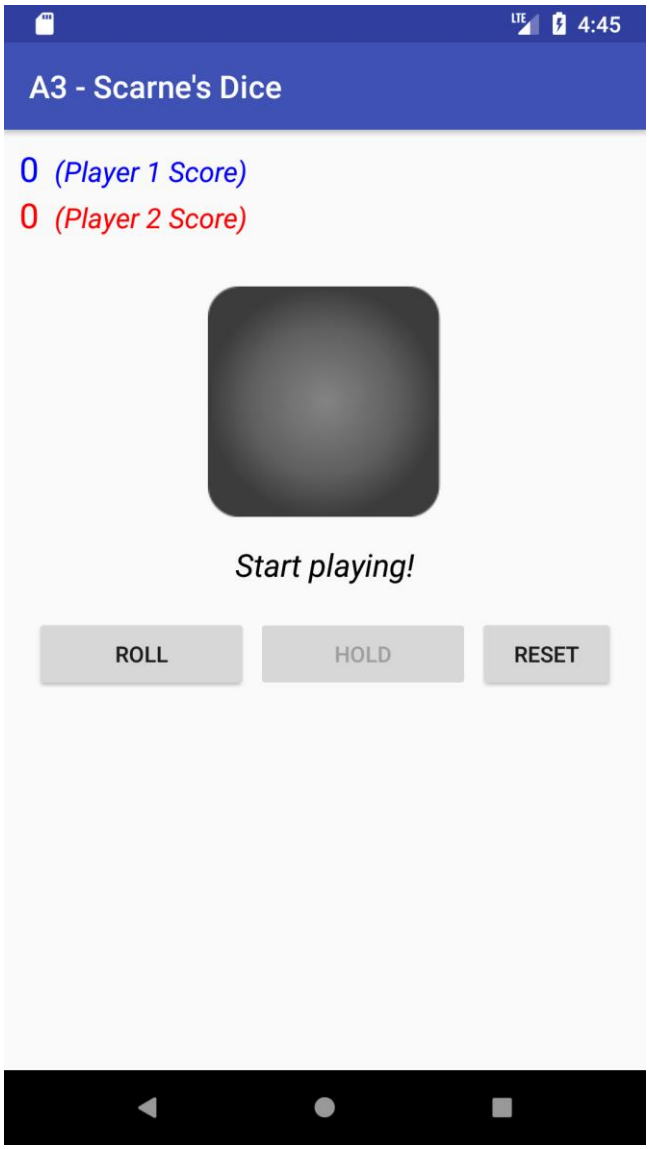

Figure 1

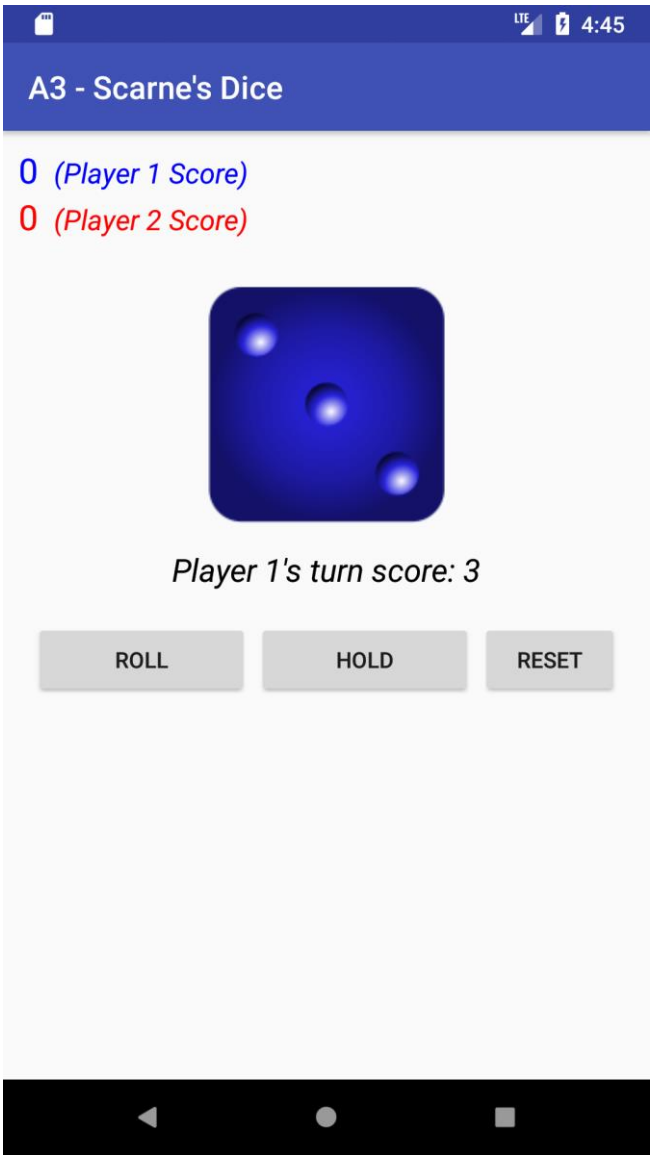

Figure 2 (P1 rolls)

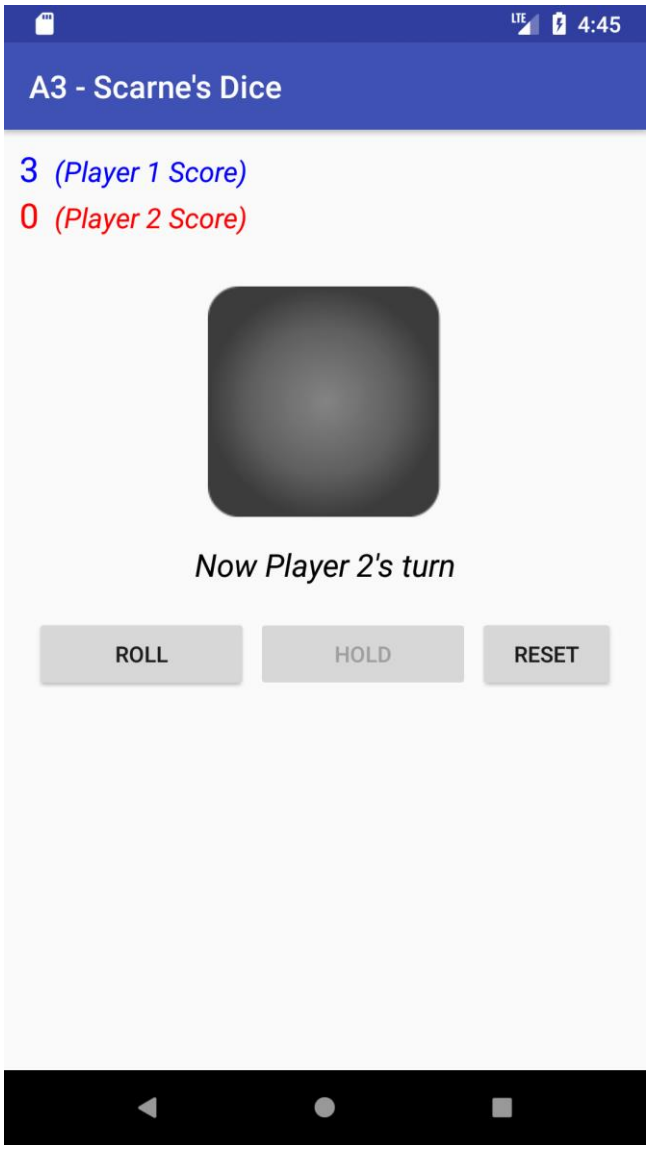

Figure 3 (P1 holds)

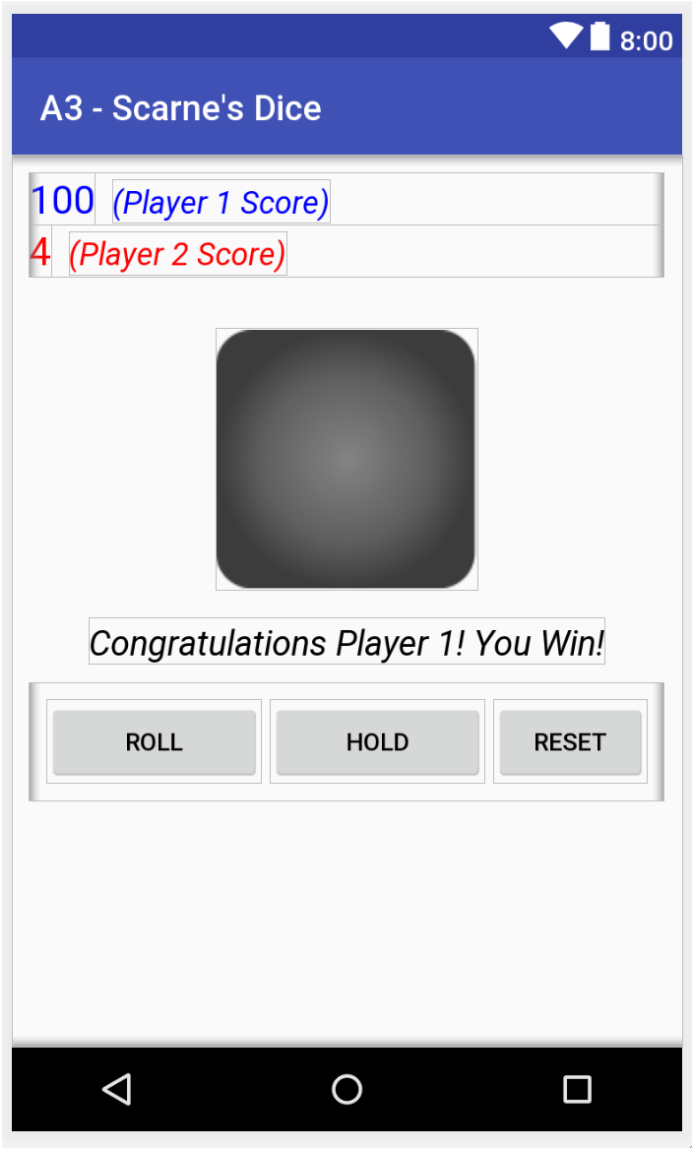

Figure 4 (Game ends)

Deliverables

1. A compressed file containing your app. Follow the guidelines for full credit.
   Here are the instructions for submission
   a) Navigate to your project folder.

b) Include the *entire* folder in a zip file
c) Rename the zip file so it follows this convention: *A#.lastname.firstname*
d) Upload zip file to Blackboard site for our course

Grading

Item	Points
Initial layout	5
Images loading from Picasso	5
Game play	20
Total	**30**