Assignment Number 6

100 Points

Prerequisites: Completion of Assignment 4

References: Text chapters 11

Skills Required:

1. Basic Java Graphical User Interface techniques
2. Understanding the Swing class hierarchy
3. Familiarity with layout managers, Frames, and Panels
4. Ability to draw simple shapes
5. Clone window close method from copy assignment provided by instructor

Task Specifications:

1. Create a graphical application that has a default window size of about two-thirds of your screen.
2. Draw a depiction of one face of a single die that uses most of your window
3. Use a rounded rectangle for the outline of the die
4. Place the dots on the face of the die using filled circles
5. Generate a random number between 1 and 6 to select which die to draw
6. If the number is 1 or 6, draw in black.
7. If the number is 2 or 5, draw in red.
8. If the number is 3 or 4, draw in green.
9. Design the application so that if the user changes the size of the window, the die changes size appropriately. That is, the die is square, the dots are the right size, and the dots are in the correct locations.
10. (not required, but suggested) Create the application so that it has a user-control that resets the random number. In this way, the user can “re-roll” the dice over and over and the display will change among the different colors.

Evaluation Criteria

1. Tasks 1-9 must be completed to receive credit for this assignment
2. Application should stop based on user closing the window or pressing a “Close” button.