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CS 110 - Section 1
Professor Tao
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<center>Assignment II</center>

<center>TITLE: Happy lunar Chinese New Year</center>

Short Description:

      This is a dynamic drawing designed for the incoming lunar Chinese New Year. First, the hammer will move along with your mouse, and the alphabets will wander around randomly within a circle of radius 300 which centered at the mouse position. When you click the mouse within the smallest rectangular which enclosed the painted eggshell, the egg will crash and the text "Happy new year" as well as my signature will appear in the middle of the canvas. If you click outside of that rectangular, a star will be drawn around within a circle of radius 100 which centered at the mouse position at which clicking the left button; otherwise, a colorful flower will be drawn around. Have fun playing around with this project and Happy Chinese lunar New Year!

More Detailed Description:

      For the second assignment, I designed a greeting card for lunar Chinese New Year. The inspiration comes from a popular game, named "Cracking the golden egg", in many Chinese shopping mall. When consumers buy a given amount of products, they will be given the opportunity to crack one painted egg among several eggs. There are different prizes written on the cards inside the eggs and consumers can get the corresponding prize.

      For my coding procedures, I further practiced the basic curves and shapes while defining those functions. In order to create a symmetric effect and to draw images in the middle of the canvas, I designed most of them with the canvas size 600*600 and later converted them to the fraction of canvas width and height. Besides, I understood the convenience of implementing my own functions, changing the values as a fraction of the canvas width and height, and reuse

them to draw several shapes at different places and of different sizes. For example, I choose to write functions of all those letters that made up of the greetings "Happy New Year" so that I can recall them within draw function and randomly create the alphabetical effect of these alphabets at random locations within a circle which centered at the mouse position and of different width and height. Also, I made good use of the processing reference page, in which I learned the "if-else" condition; mouseButton; and "and-or" logic to improve the interaction. Using if-else condition, I tried to differentiate the mouseClick effect within the egg and outside of the egg, by incorporating the ellipse constraint based on the mouse position and the focus points of the ellipse. However, it ends up with an annoying square root expression so I redesigned the effect to with "and-or" logic and have the smallest rectangular which enclosed the egg as my condition. This redesign makes sense and the code is much clean, but I am looking forward to learn more in this class to have a more exact effect. Finally, I read Chapter three by myself and found the algebra for stars really cool. I fully understood it and decided to implemente that coding in my project to create a well-painted golden egg.

Overall, I strengthened my coding skills with different shapes, and also familiarized with the function and interaction. I dedicated a lot but really had fun in this assignment.