CIS 4930 - 001: Summer 2018
Homework 4

Total Points: 100.
Due: Wednesday 07/11/2018 11:59:59 PM

1 Objective

The purpose of this assignment is to ensure that you can design and implement a small scale Python GUI based program using PyQT. You might have to activate x-term on your computer if you are testing this by command line. It would be better to use an IDE for this project.

Turn in you file FSUID_hw4.py on Canvas

2 Specifications

For this homework, you need to build a small Python GUI based application. This is to ensure your familiarity with setting up a small GUI with a paintEvent and buttons that react to events. Please make sure your code conforms to the following specifications:

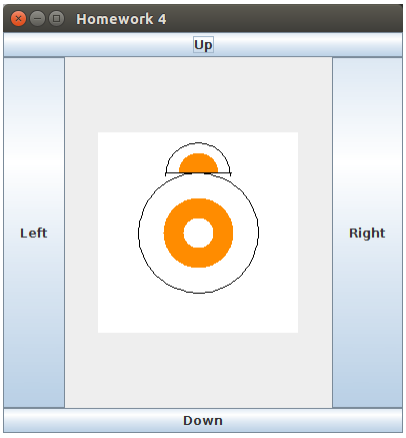
1. Create a Python class called `Homework4` and another class called `DrawImage`. (10 points)
2. In __main__, create an object of Homework4, which contains the main window. Also call app.exec_(). (5 points)
3. In the `Homework4` class, set up the main components of the Window. (5 points)
4. Create the 4 buttons and bind them to an event slot. (10 points)
5. In the `DrawImage` class, use the paintEvent function to draw on the canvas. Use the appropriate brushes. (20 points)
6. You can create helper classes if required.
7. Make the canvas respond to the button pushes to paint a new image over the existing image. (50 points, 10 per button, one for overall drawing).

3 General Guidelines

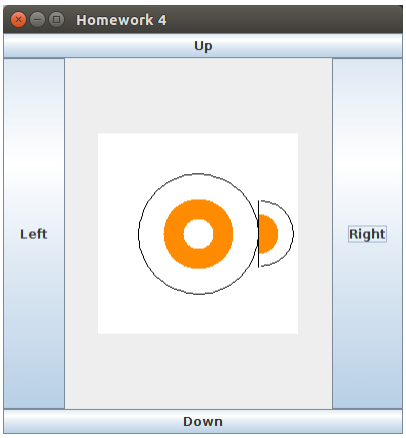
1. Please make sure your program runs before you turn it in.
2. Please make sure that you're conforming to specifications.
3. Please make sure your code is readable.
4. Please do not use any third party libraries except QT.
5. You are not allowed to copy code off the internet, although you can look to the internet for inspirations/ debugging help.

4 Sample Output

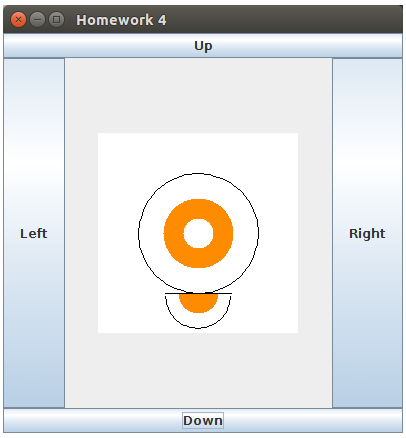
Your resulting window should look something like this:



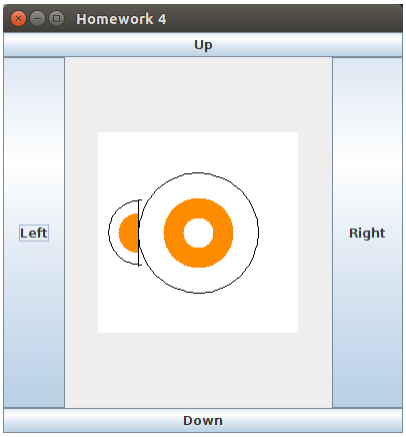
Upon clicking on the "Right" button:



Upon clicking on the "Down" button:



Upon clicking on the "Left" button:


Homework 4
Up
Left
Right
Down