

CSE 213 – Homework 7 Rubric

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Problem	Score	Total
Style Guidelines	8	8
Submission is named cse213_<firstname>_<lastname>_hw7.tar.gz	1	1
Packages are named: oop.<firstinitial><lastname>.hw7.<number> where <number> is the problem number	1	1
Code follows Google's style guide reasonably well, and uses four-space indentation	1	1
Every public class and public method has a Javadoc comment	5	5
DrawShape.java	13	13
Imports geometry package from Homework 5	1	1
drawPoint() draws a colored point on the given Graphics2D instance; saves and restores the original color	5	5
drawRectangle() draws a colored rectangle on the given Graphics2D instance; saves and restores the original color	4	4
drawCircle() draws a colored circle on the given Graphics2D instance; saves and restores the original color	3	3
ClockFace.java	18	18
Inherits from JComponent	1	1
Has three private members: hour, second, minute	2	2
Constructors sets the preferred size of the JComponent to 400x400	2	2
Has a constructor that sets to time to the local time	2	2
Has a constructor that checks that hour is between 0 and 23, and the minute and second are between 0 and 59. Uses local time if any value is out of range.	2	2
Displays the background image "clock.jpg"	2	2
Draws three line segments for the second, minute, and hour hands at the correct angles and lengths	5	5
Sets variable stroke widths for the hands, sets the color to red to draw the second hand	2	2
ClockFrame.java	10	10
Inherits from JFrame	1	1
Adds a JLabel with the clock's time zone	5	5

Adds a ClockFace	2	2
Has a main method that creates a new ClockFrame, opens the window to display the time, and exits when the user closes the window	2	2
Sierpinski.java	18	18
Note: The four arguments to triangleColor() are the three points of the triangle and a fourth point to color - their order isn't specified / doesn't matter		
Inherits from JPanel	1	1
Sets background color	2	2
triangleColor() calculates the max distance between the first three points by finding the distance from the fourth point to each of the corners, and dividing by that max distance. <ul style="list-style-type: none"> L is fixed rather than calculated (-1 point) 	5	5
paintComponent() draws a Sierpinski triangle by following this algorithm: <ol style="list-style-type: none"> Set the point x to one of R=(250,77), G=(50,423), or B=(450,423) For some high number of iterations: <ol style="list-style-type: none"> Randomly choose one of R, G, and B as a target point Calculate the midpoint between x and the target Set x to the value of the midpoint Draw x 	10	10
SierpinskiFrame.java	3	3
Inherits from JFrame	1	1
Creates and displays a new SierpinskiFrame and exits when the window is closed.	2	2
GoBoard.java	24	25
Note: It might seem ambiguous to come which dimensions are called "row" or "column" - as long as the program is consistent, it shouldn't matter if the final image is transposed		
Inherits from JComponent	1	1
Constructor sets preferred size to 720x720 and initializes the stones attribute to be a 19x19 array of null Colors	3	3
addStone() sets the given index in the stones array to the given color	5	5
fromFile() reads the content from a given file path and attempts to add stones to a new GoBoard	5	5
fromFile() catches IO or Scanner exceptions and throws an IllegalArgumentException if the file is incorrectly formatted or if there is any IO error <ul style="list-style-type: none"> Exceptions caught but not thrown (-1 point) 	1	2
paintComponent() draws bamboo.jpg	2	2
paintComponent() draws a stone for each non-null element in the stones array	5	5

paintComponent() moves a single Circle instead of creating hundreds of Circles	2	2
GoFrame.java	5	5
Inherits from JFrame	1	1
Creates and displays a new GoBoard and exits when the window is closed	2	2
Draws two centered JLabels BorderLayout.SOUTH of the GoBoard using a JPanel with a 1 row 2 column grid layout. The left label is black and the right label is white	2	2
Total Score	99	100
Comments:		