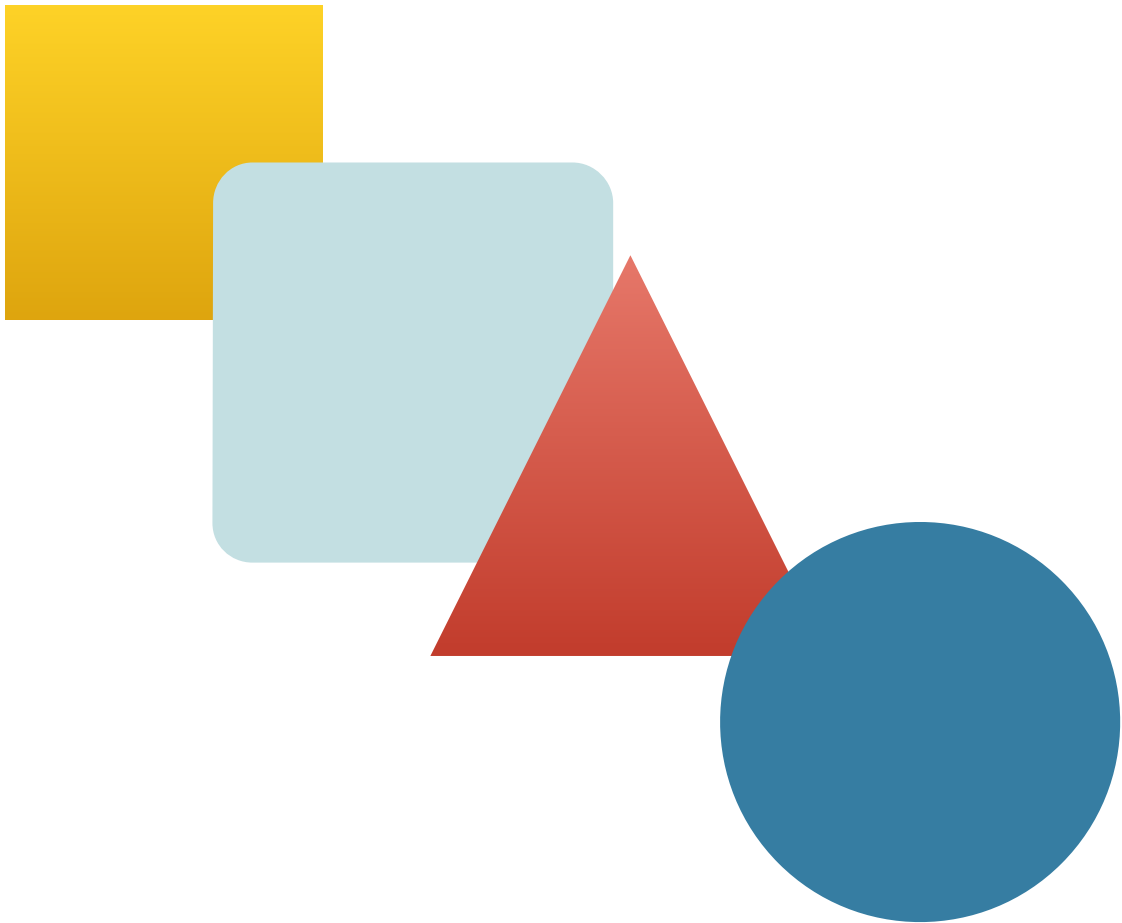**SMARTTROLLEY**

Module Description: Graphics

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1. INTRODUCTION

This document is a Description of the graphics module to be developed by SmartTrolley. This module will have functionality to be able to process all the parameters of a PWS compliant Shape. It will also include additional functionality such as the ability to perform certain animations.

2. SPECIFICATIONS

ShapePoint Class

for retrieving points from the xml slideshow document. self orders when placed in appropriate interface (such as PriorityQueue) based on pointNumber

Constructor Parameter	Function
int xCoordinate:	The X coordinate in pixels of the point to be plotted
int yCoordinate:	The Y coordinate in pixels of the point to be plotted
int pointNumber:	Defines the order low to high of the points to be plotted.

SlideShape Class

Constructor Parameter	Function
priorityQueue<Point> points	A list of points that describe the shape to be dawn, if one point is contained an oval is drawn.
int width, int height:	For a polygon - Width and height override the size of the polygon drawn and scale it so that it fits within the constraints of a box of dimensions width x height.
int width, int height:	For an oval - Width and height define the horizontal and vertical diameters of the oval, for a circle height and width should be equal

Modification Method	Function
setFillColor(String rgbColor)	Insert an RGB hex string ie. "FFA44F" and the shape will be filled with the color specified
setLineColor(String rgbColor)	Same input as fill but sets the color of the outline
setDuration(int duration)	Millisecond duration that the shape is visible on the page for. 0 is default and means the shape stays visible continuously
setWidth(int width); setHeight(int height);	Set width and height as discussed in the constructor parameter table

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Retrieval methods	Function
Getters:	Each modification 'set' method has a corresponding 'get' method.
Shape getShape()	Returns the shape for flexible usage elsewhere
Pane getPane(int x, int y)	Returns a Pane with the shape added at the defined coordinates.

3. EXTRA FEATURES PLANNED

- SlideShape to extend the javafx type shape with built in functionality to handle animation etc.

- Constructors that do not require width and height for creating polygons that don't need this information

- Preset examples such as square, circle, pentagon etc. With a constructor that receives a string, height and width for creating these.