# PaintDotOrg UML Diagram

#### **PurchaseTracker**

-costToPurchaseAllFeatures: int -featuresToPurchase: int -pencilBought: boolean -saveBought: boolean

-saveAsBought: boolean -openBought: boolean

-openRecentBought: boolean -exportBought: boolean

-newProjectBought: boolean -eraserBought: boolean -fillBought: boolean

-textBought: boolean -rectangleBought: boolean -circleBought: boolean -lineBought: boolean

-lineThicknessBought: boolean -typeTextBought: boolean -pencilColorBought: boolean

-fillColorBought: boolean -textColorBought: boolean -textFontBought: boolean

-textStyleBought: boolean -textSizeBought: boolean

-selectBought: boolean -importImageBought: boolean

-rotateBought: boolean

+getters +setters

## **Drawings**

-lineThickness:int -startX:int

-startY:int -endX:int -endY:int

+getters +setters

#### Driver

-frame: Jframe

-drawingArea: DrawingArea

-title: JLabel

-background: JPanel

-tools: JPanel

-selectOpenRecent: JComboBox

-saveAsButton: JButton -saveButton: JButton -openButton: JButton -exportButton: JButton -newProjectButton: JButton -pencilButton: JButton -eraserButton: JButton -fillButton: JButton

-rectangleButton: JButton -circleButton: JButton lineButton: JButton -lineThicknessSlider: JSlider

-tvpedText: JTextField -textButton: JButton -pencilColorButton: JButton -fillColorButton: JButton -textColorButton: JButton

-textFont: JLabel

-selectTextFont: JComboBox

-textStyle: JLabel

-selectTextStyle: JComboBox

-textSize: JComboBox -selectTextSize: JComboBox -selectButton: JButton

-rotateButton: JButton -importButton: JButton

-buyAllRemainingFeaturesButton: JButton

+main(String args[][]):void

+Driver():Driver

+actionPerformed(ActionEvent e):void +luhnCheck(string card):boolean

+calculateCheckDigit(string card): String

## DrawingArea

-drawings:Drawings

-shapes:ShapeDrawings

-rectangles:RectangleDrawings

-circles:CircleDrawings -lines:LineDrawings

-texts:TextDrawings -paths:PathDrawings

-images:ImageDrawings

-fill: FillAction(); -select:SelectAction

-userIOActions:IOActions

-dragging:boolean

-drawRectangle:boolean

-drawCircle:boolean -drawLine:boolean

-drawPencil:boolean -drawEraser:boolean

-drawText:boolean

-drawFill:boolean

-drawlmage:boolean

-drawInitialize:boolean

-drawSelect:boolean -numDrawings:int

-p:GeneralPath

+paintComponent(Graphics gfx):void

+mousePressed(MouseEvent me):void

+mouseDragged(MouseEvent me):void

+mouseReleased(MouseEvent me):void

+mouseClicked(MouseEvent me):void +mouseEntered(MouseEvent me):void

+mouseExited(MouseEvent me):void

+mouseMoved(MouseEvent me):void

+drawRectangle():void

+drawCircle():void

+drawPencil():void

+drawEraser():void

+drawLine():void

+drawText():void +drawFill():void

+drawSelect():void

+initialize():void

+getters

+setters

## **ShapeDrawings**

-fillColor:Color

+setFillColor(DrawingArea drawingArea,Graphics g):void

+setStroke(DrawingArea drawingArea, Graphics gfx):void +mousePressed(MouseEvent me, DrawingArea drawingArea):void

+mouseDragged(MouseEvent me, DrawingArea drawingArea): +getters

+setters

### RectangleDrawings

-rectangles\_colors:LinkedList<Color>()

-rectangles\_startX:LinkedList<Integer>()

-rectangles\_startY:LinkedList<Integer>() -rectangles\_endX:LinkedList<Integer>()

-rectangles\_endY:LinkedList<Integer>()

-rectangles\_drawNumber:LinkedList<Integer>()

-rectangles\_thickness:LinkedList<Integer>()

-rectangles\_filled:LinkedList<Boolean>()

+drawRectangle(DrawingArea drawingArea, Graphics g):void

+initializeDrawingArea(DrawingArea drawingArea, Graphics g):void +mouseReleased(MouseEvent me, DrawingArea drawingArea):void

+deleteAll():void +getters

+setters

CircleDrawings

-circles colors:LinkedList<Color>()

-circles startX:LinkedList<Integer>() -circles\_startY:LinkedList<Integer>()

-circles\_endX:LinkedList<Integer>()

-circles\_endY:LinkedList<Integer>()

-circles\_drawNumber:LinkedList<Integer>()

-circles thickness:LinkedList<Integer>()

-circles\_filled:LinkedList<Boolean>()

+drawCircle(DrawingArea drawingArea, Graphics g):void

+mouseReleased(MouseEvent me, DrawingArea drawingArea):void

+deleteAll():void

+getters

+setters

## +mouseReleased(MouseEvent me, DrawingArea drawingArea):void +deleteAll():void +getters +setters **TextDrawings** -textToDisplay:String -textName:String -textStyle:int -textSize:int -textColor:Color -texts\_color:LinkedList<Color>(); -texts string:LinkedList<String>(); -texts\_startX:LinkedList<Integer>(); -texts\_startY:LinkedList<Integer>(); -texts\_name:LinkedList<String>(); -texts\_style:LinkedList<Integer>(); -texts\_size:LinkedList<Integer>(); -texts\_drawNumber:LinkedList<Integer>(); +setTextColor(DrawingArea drawingArea, Graphics g):void +drawText(DrawingArea drawingArea, Graphics g)

-lines\_colors:LinkedList<Color>() -lines startX:LinkedList<Integer>()

-lines\_startY:LinkedList<Integer>() -lines endX:LinkedList<Integer>()

-lines\_endY:LinkedList<Integer>()

-lines\_drawNumber:LinkedList<Integer>()

+drawLine(DrawingArea drawingArea, Graphics g):void

-lines\_thickness:LinkedList<Integer>()

## SelectAction

+mousePressed(MouseEvent me, DrawingArea drawingArea):void

-selectStartX:int

+getters

+setters

- -selectStartY:int
- -selectEndX:int
- -selectEndY:int
- -selectedDrawingNumber:int

+deleteAll():void

+mousePressed(MouseEvent me, DrawingArea drawingArea):void +mouseDragged(MouseEvent me, DrawingArea drawingArea):void +mouseReleased(MouseEvent me, DrawingArea drawingArea):void +mouseDraggedReleased(MouseEvent me, DrawingArea drawingArea):voic +setters

## **RotateAction**

-degrees:int

+getters

+getters

+mousePressed(MouseEvent me. DrawingArea drawingArea):void +mouseDragged(MouseEvent me, DrawingArea drawingArea):void +mouseReleased(MouseEvent me, DrawingArea drawingArea):void +mouseDraggedReleased(MouseEvent me, DrawingArea drawingArea):void +setters

LineDrawings

## **PathDrawings**

- -pointColor:Color
- -eraserColor:color
- -paths:LinkedList<GeneralPath>()

NonShapeDrawings

- -paths\_thicknesses: LinkedList<Integer>();
- -paths colors:LinkedList<Color>():
- -paths drawNumbers:LinkedList<Integer>();
- +setPointColor(DrawingArea drawingArea, Graphics g):void
- +setEraserColor(DrawingArea drawingArea, Graphics g):void
- +setStroke(DrawingArea drawingArea, Graphics g):void
- +drawPath(DrawingArea drawingArea, Graphics g):void
- +mousePressed(MouseEvent me, DrawingArea drawingArea):void
- +mouseDragged(MouseEvent me, DrawingArea drawingArea):void
- +mouseReleased(MouseEvent me, DrawingArea drawingArea):void
- +deleteAll():void
- +getters
- +setters

## **ImageDrawings**

- -images:LinkedList<BufferedImage>();
- -images\_startX:LinkedList<Integer>();
- -images\_startY:LinkedList<Integer>();
- -images\_endX:LinkedList<Integer>();
- -images\_endY:LinkedList<Integer>();
- -images draggable:LinkedList<Boolean>():
- -limages\_drawNumber:LinkedList<Integer>();
- +drawImage(DrawingArea drawingArea, Graphics g):void
- +deleteAll():void
- +getters
- +setters

### **FillAction**

- +setFillColor(DrawingArea drawingArea, Graphics g):void
- +mousePressed(MouseEvent me, DrawingArea drawingArea):void

## **IOActions**

- -savePath:Path
- -saveFile:File
- -loadedImage:bufferedImage
- -openRecent:boolean
- -loadedImageDraggable:boolean
- +saveAs(DrawingArea drawingArea):void
- +save(DrawingArea drawingArea):void
- +open(DrawingArea drawingArea):void
- +openRecent(DrawingArea drawingArea,Path loadFilePath):void
- +newProject(DrawingArea drawingArea):void+importImage(DrawingArea drav
- +setters
- +getters



