## Shape + static int nextTracker + static bool trackersInUse # QTreeWidgetItem \* parentItem # alpha::vector< QTreeWidget > childItems # alpha::vector< QTreeWidget > pointsItems # alpha::vector< QTreeWidget Item > penItems # alpha::vector< QTreeWidget > brushItems Item <sup>1</sup> const int shapeld int trackerld string shapeType - QPen pen QBrush brush QPoint coords QPainter painter bool isSelected + Shape(int shapeId, string shapeType, QPoint coords, QPen pen, QBrush brush) + virtual ~Shape() + virtual void Draw(QWidget renderArea)=0 + virtual void Move(int x, int y) + virtual double Perimeter () const =0+ virtual double Area () const = 0+ virtual bool isPointInside (const QPoint &point) const =0 + void CreateParentItem() + void CreatePenChild() + void CreateBrushChild() and 36 more... Shape(Shape &shape) delete - Shape & operator=(Shape &object)=delete Polygon QPolygon pointsList + Polygon(string shapeType, QPoint coords, QPen pen, QBrush brush, QPolygon pointsList) oid Draw(QWidget \*render Area) override + void Move(int x, int y) override + double Perimeter() const override + double Area() const override + bool isPointInside

## (const QPoint &point) const override + QPolygon getPointsList () const void setPointsList (const QPolygon &newPoints List)

+ void setX(int newX) + void setY(int newY)