## Shape + static int nextTracker + static bool trackersInUse # QTreeWidgetItem \* parentItem # alpha::vector< QTreeWidget Item \* > childItems # alpha::vector< QTreeWidget Item \* > pointsItems # alpha::vector< QTreeWidget Item \* > penItems # alpha::vector< QTreeWidget Item \* > brushItems const int shapeld int trackerld string shapeType - QPen pen QBrush brush QPoint coords - QPainter painter bool isSelected + Shape(int shapeId, string shape Type, 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 Circle int r + Circle(string shapeType, QPoint coords, QPen pen, QBrush brush, int r) + void Draw(QWidget \*render Area) override + double Perimeter() const override + double Area() const override + bool isPointInside (const QPoint &point) const override + int getR() const + void setR(int radius) + void setX(int x) + void setY(int y)