String Cheese

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Period 4

Bubble Shooter: UML

Ruk	hla	Sho	oter
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- + boolean inMotion
- + PVector mouseClick
- + PVector center
- + boolean lose
- + boolean \_ win
- + BubbleGrid bubbleField
- + ALQueue<Bubble> \_upNext
- + int turn
- + int gameScreen
- + Plmage end
- + Plmage font
- + static final float SPEED
- + static final int MAXROW
- + static final int RADIUS
- + setup()
- + draw()
- + initScreen()
- + gameOverScreen()
- + restarting(int x, int y, int w, int h)
- + snap()
- + recharge()
- + createAngleVector()
- + launch(Bubble b)
- + adjustByAngle(Bubble b)
- + mouseClicked()
- + createPointer(Bubble b)
- + populateQueue()
- + shiftDown()
- + checkLose()
- + checkWin()
- + loseLine()
- + drawAll()

## Bubble

- int \_state
- int color
- float radius
- float dx
- float \_dy
- float \_xcor
- float \_ycor
- ArrayList<Bubble> \_neighbors;
- Boolean checked
- int \_hanging;
- + static final int RED
- + static final int BLUE
- + static final int YELLOW
- + static final int GREEN
- + static final int PINK
- + static final int RADIUS
- + Bubble()
- + Bubble(float x, float y, int state)
- + Bubble(float x, float y, int ncolor, int state)
- + Bubble(int ncolor)
- + Accessors + Mutators
- + move()
- + fall()
- + bounce()
- + inContact(Bubble other)
- + numActiveNeighbors()
- + getSameNeighbors()
- + getNotSameNeighbors()
- + getActiveNeighbors()
- + showQueueBubble(int index)
- + show()

## BubbleGrid

- Bubble[][] \_bubbleGrid
- int \_size
- LList<Bubble> \_cluster
- int \_cPop
- LList<Bubble> \_hangingBubbles
- int numMoved
- int score
- int \_largestCluster
- int \_poppedPerCluster
- + static final int RADIUS
- + BubbleGrid()
- + getBubble(int x, int y)
- + getRecentPop()
- + setBubble(int x, int y, Bubble b)
- + moveDown()
- + adjustCors()

## Other Classes

ALQueue<T>

LLNode<T>

LList<T>

List interface