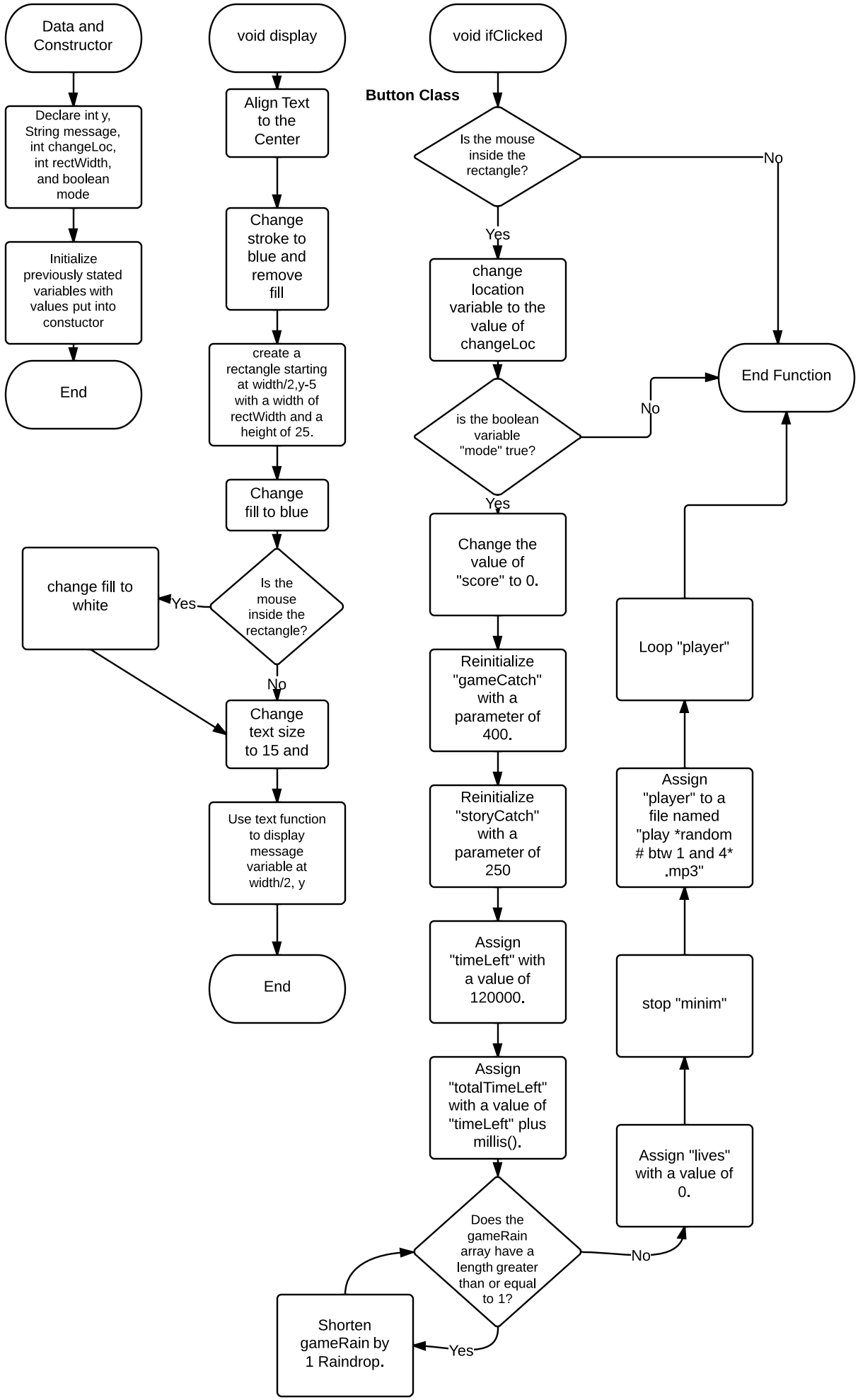
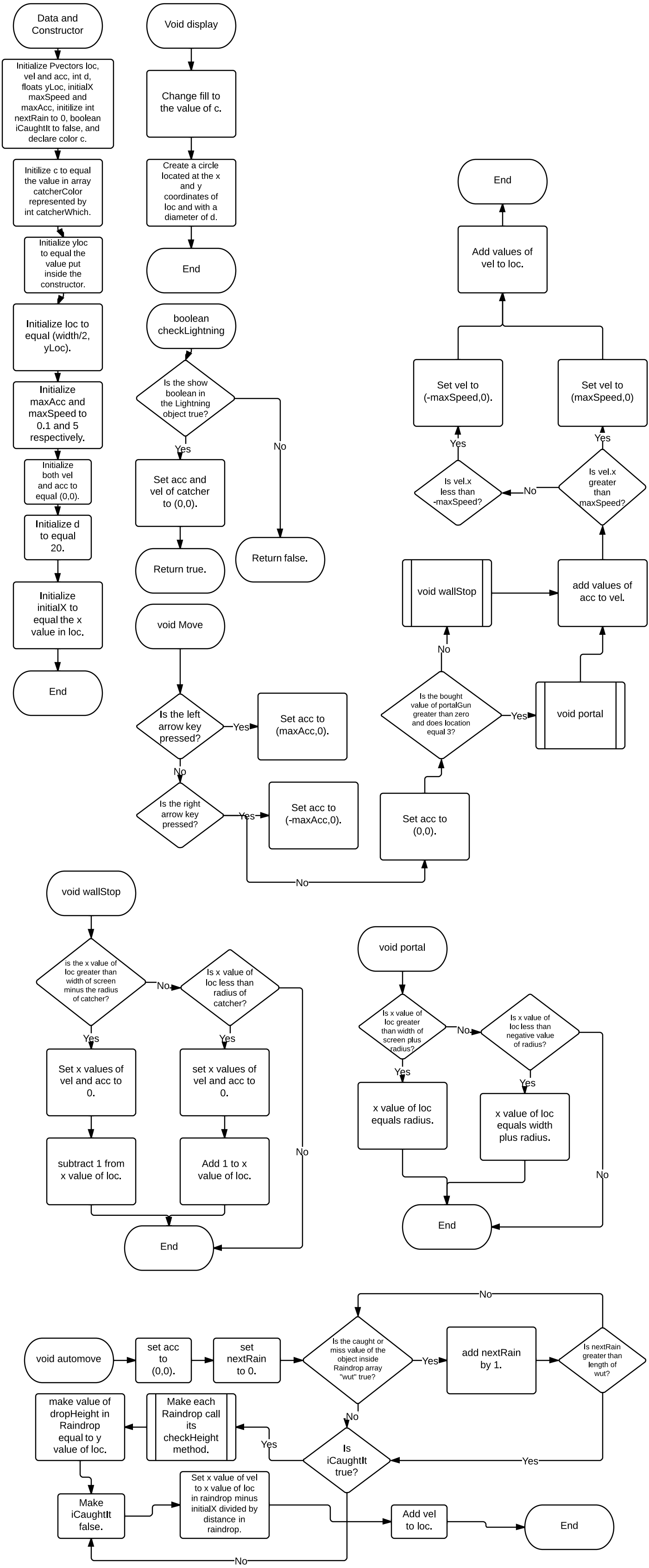
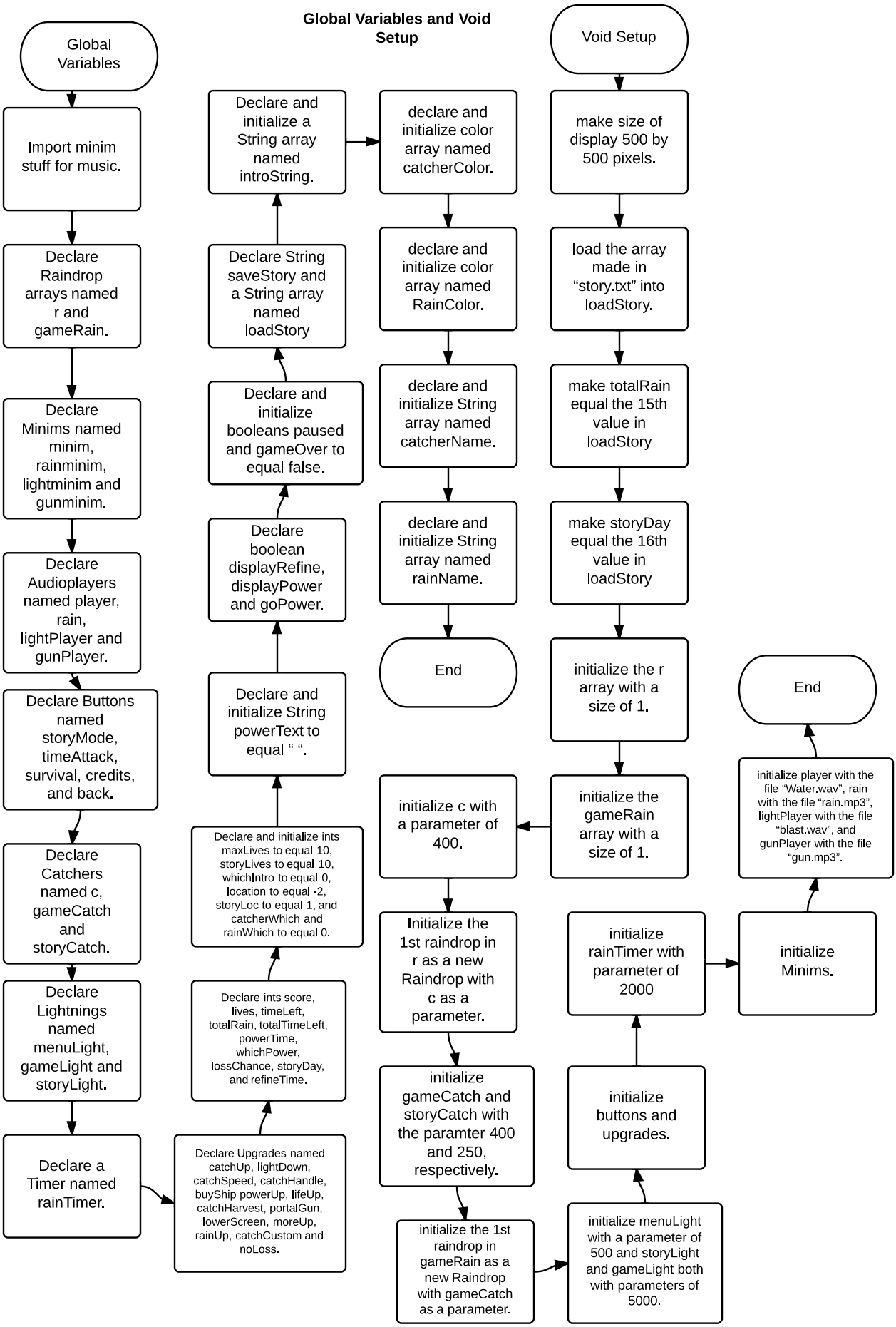
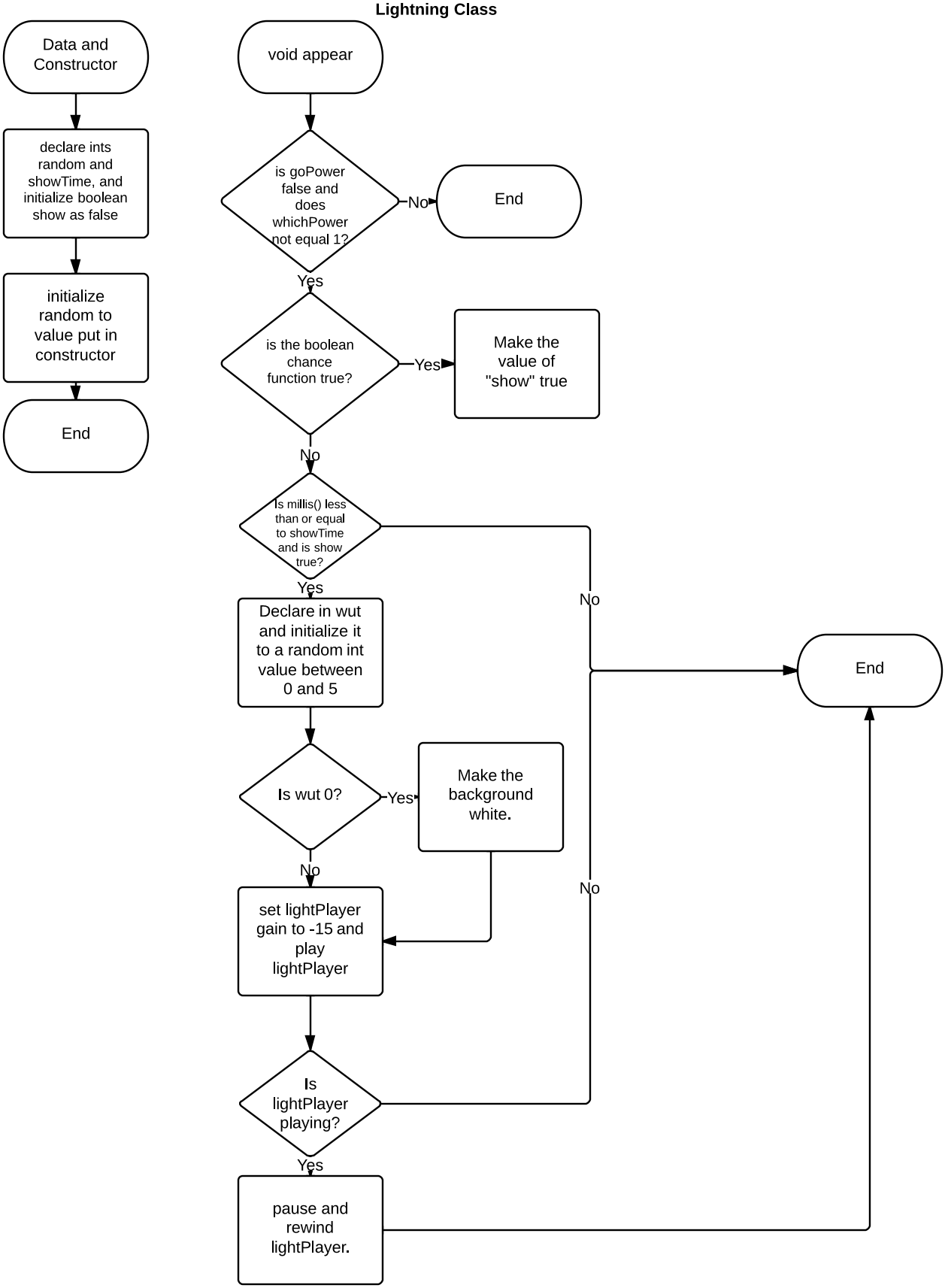

Data and Constructor
Declare int y, String message, int changeLoc, int rectWidth, and boolean mode
Initialize previously stated variables with values put into constuctor
End
void display
Align Text to the Center
Change stroke to blue and remove fill
create a rectangle starting at width/2,y-5 with a width of rectWidth and a height of 25.
Change fill to blue
Is the mouse inside the rectangle?
Yes
change fill to white
No
Change text size to 15 and
Use text function to display message variable at width/2, y
End
Button Class
void ifClicked
Is the mouse inside the rectangle?
No
Yes
change location variable to the value of changeLoc
is the boolean variable "mode" true?
No
End Function
Yes
Change the value of "score" to 0.
Reinitialize "gameCatch" with a parameter of 400.
Reinitialize "storyCatch" with a parameter of 250
Assign "timeLeft" with a value of 120000.
Assign "totalTimeLeft" with a value of "timeLeft" plus millis().
Does the gameRain array have a length greater than or equal to 1?
No
Yes
Shorten gameRain by 1 Raindrop.
Assign "lives" with a value of 0.
stop "minim"
Assign "player" to a file named "play *random # btw 1 and 4* .mp3"
Loop "player"

Catcher Class

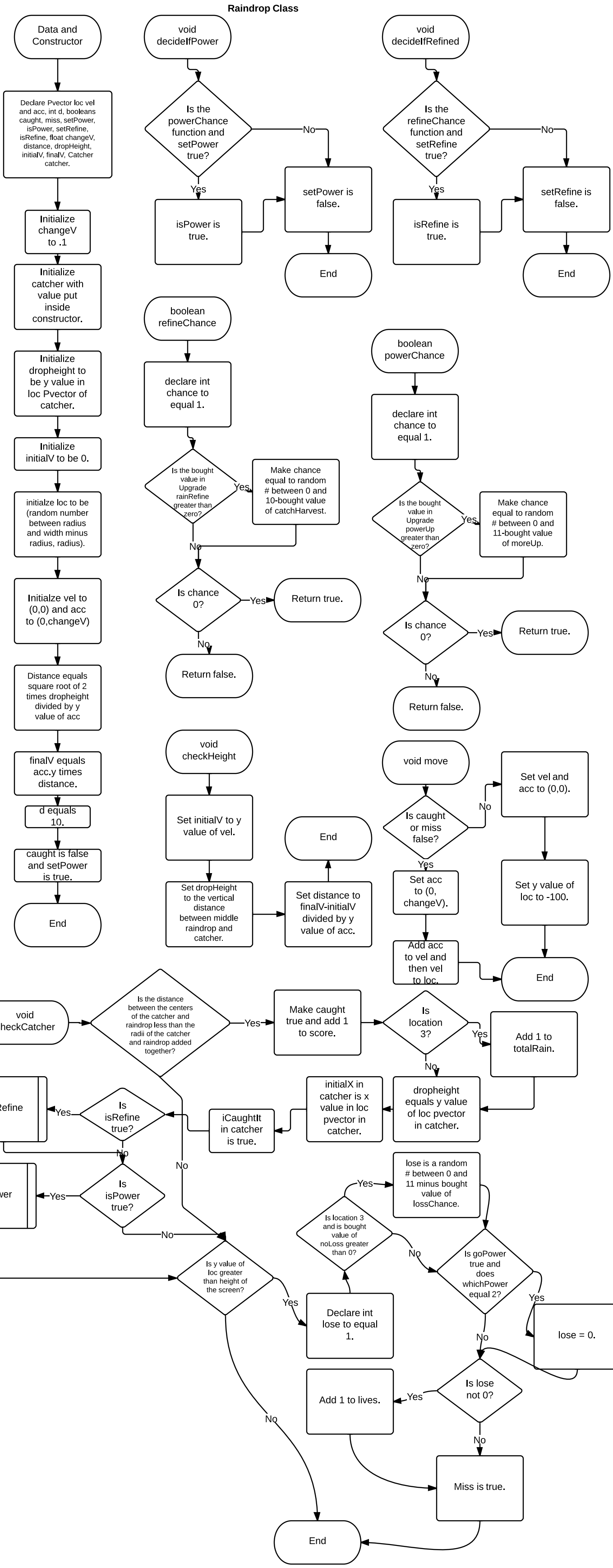



Global Variables and Void Setup
Global Variables
Import minim stuff for music.
Declare Raindrop arrays named r and gameRain.
Declare Minims named minim, rainminim, lightminim and gunminim.
Declare Audioplayers named player, rain, lightPlayer and gunPlayer.
Declare Buttons named storyMode, timeAttack, survival, credits, and back.
Declare Catchers named c, gameCatch and storyCatch.
Declare Lightnings named menuLight, gameLight and storyLight.
Declare a Timer named rainTimer.
Declare Upgrades named catchUp, lightDown, catchSpeed, catchHandle, buyShip powerUp, lifeUp, catchHarvest, portalGun, lowerScreen, moreUp, rainUp, catchCustom and noLoss.
Declare ints score, lives, timeLeft, totalRain, totalTimeLeft, powerTime, whichPower, lossChance, storyDay, and refineTime.
Declare and initialize ints maxLives to equal 10, storyLives to equal 10, whichIntro to equal 0, location to equal -2, storyLoc to equal 1, and catcherWhich and rainWhich to equal 0.
Declare and initialize String powerText to equal " ".
Declare boolean displayRefine, displayPower and goPower.
Declare and initialize booleans paused and gameOver to equal false.
Declare String saveStory and a String array named loadStory
Declare and initialize a String array named introString.
Void Setup
make size of display 500 by 500 pixels.
load the array made in "story.txt" into loadStory.
make totalRain equal the 15th value in loadStory
make storyDay equal the 16th value in loadStory
initialize the r array with a size of 1.
initialize the gameRain array with a size of 1.
initialize c with a parameter of 400.
Initialize the 1st raindrop in r as a new Raindrop with c as a parameter.
initialize gameCatch and storyCatch with the paramter 400 and 250, respectively.
initialize the 1st raindrop in gameRain as a new Raindrop with gameCatch as a parameter.
initialize menuLight with a parameter of 500 and storyLight and gameLight both with parameters of 5000.
initialize buttons and upgrades.
initialize rainTimer with parameter of 2000
initialize Minims.
initialize player with the file "Water.wav", rain with the file "rain.mp3", lightPlayer with the file "blast.wav", and gunPlayer with the file "gun.mp3".
End
declare and initialize color array named catcherColor.
declare and initialize color array named RainColor.
declare and initialize String array named catcherName.
declare and initialize String array named rainName.
End

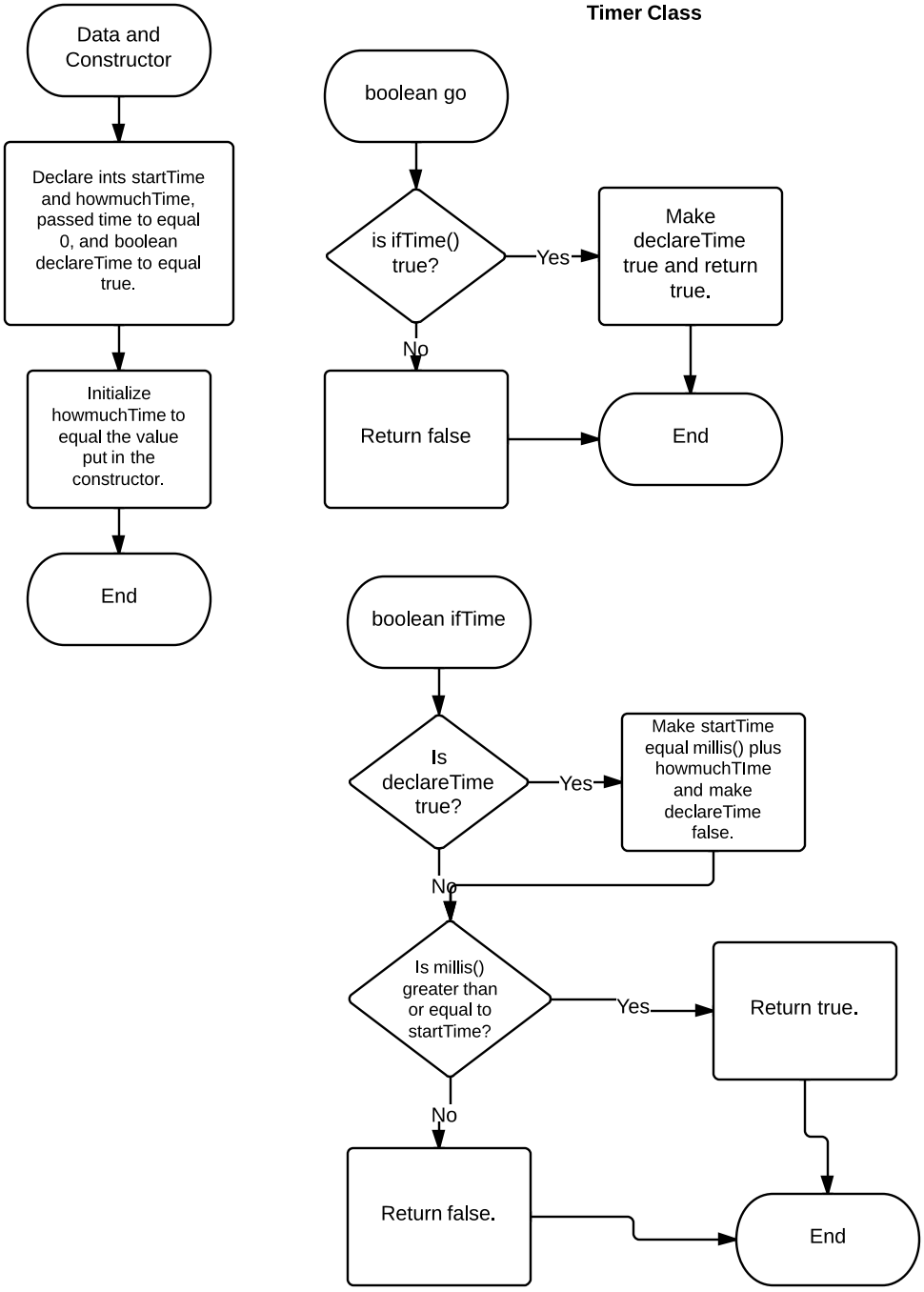
Lightning Class



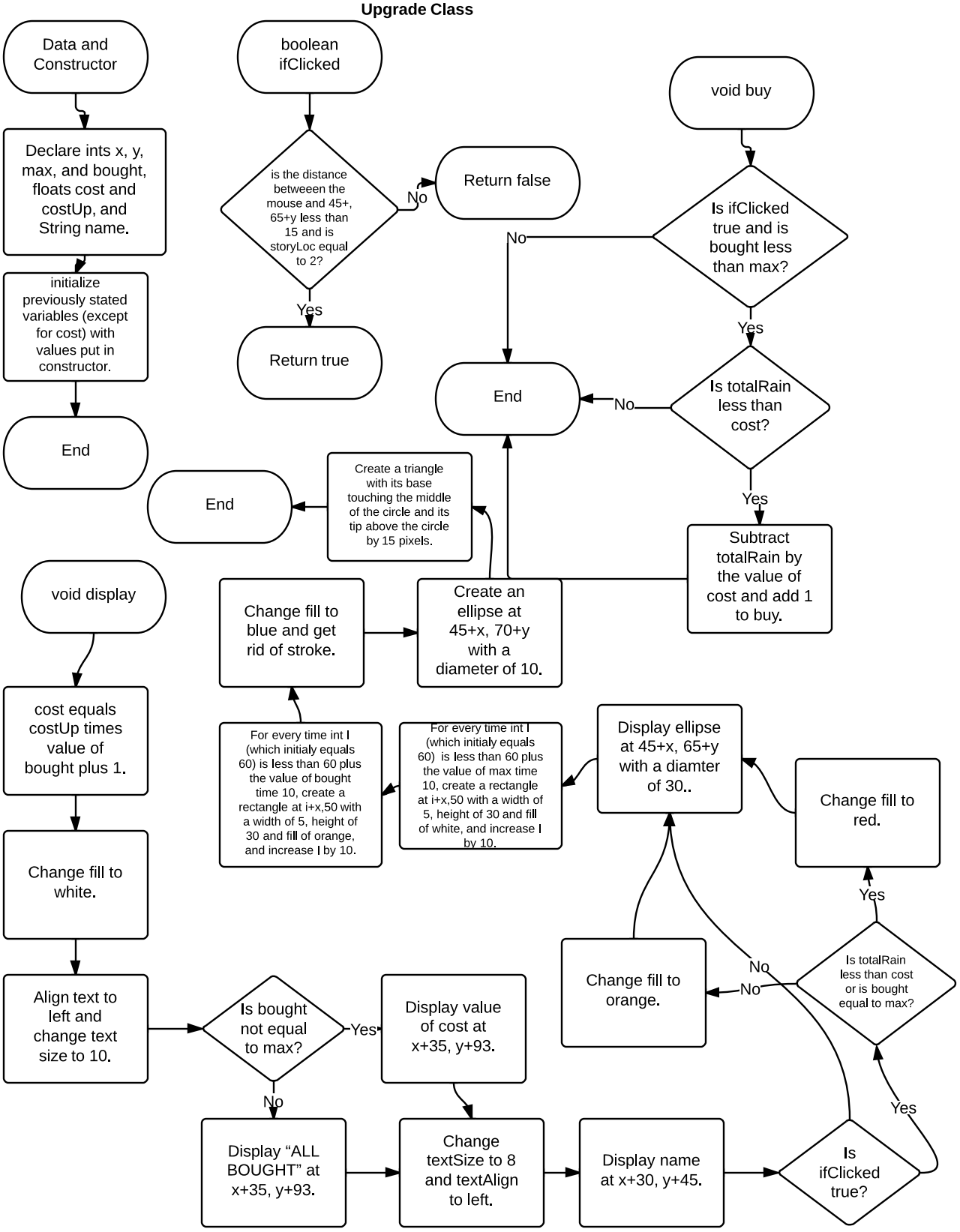
Raindrop Class



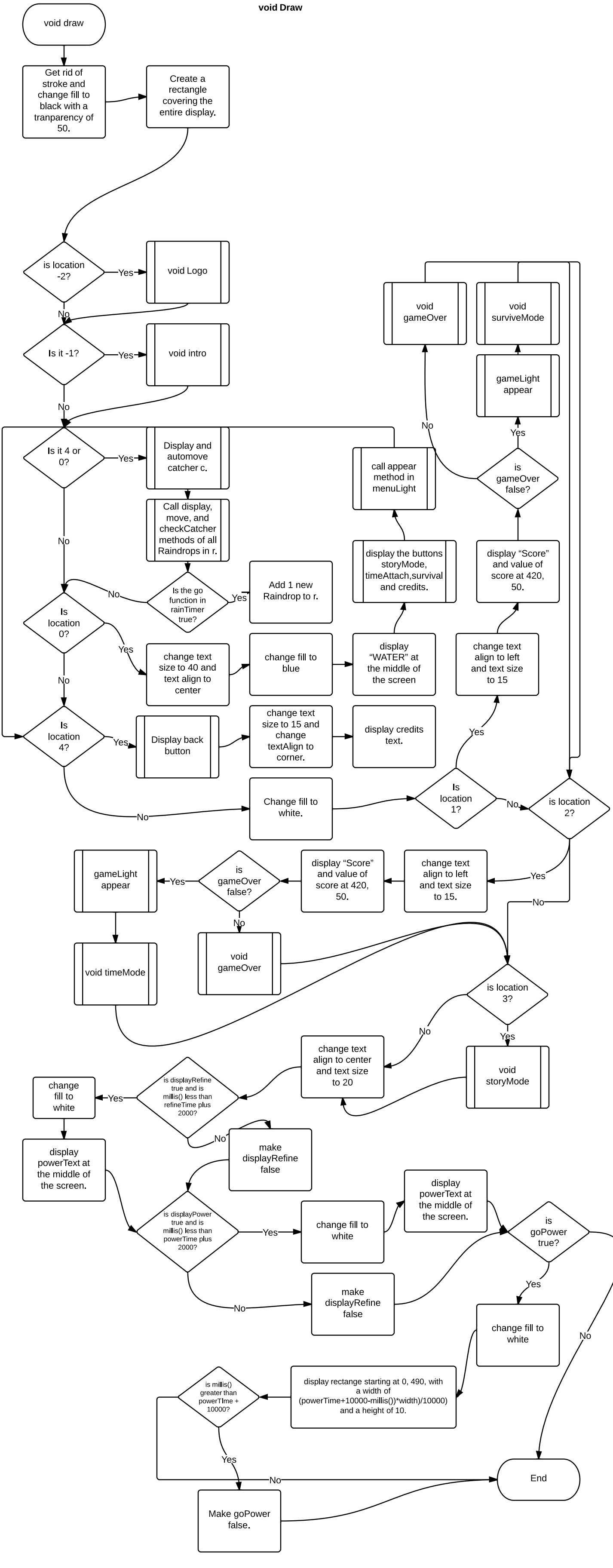
Timer Class


Data and Constructor
Declare ints startTime and howmuchTime, passed time to equal 0, and boolean declareTime to equal true.
Initialize howmuchTime to equal the value put in the constructor.
End
boolean go
is ifTime() true?
Yes
Make declareTime true and return true.
No
Return false
End
boolean ifTime
Is declareTime true?
Yes
Make startTime equal millis() plus howmuchTIme and make declareTime false.
No
Is millis() greater than or equal to startTime?
Yes
Return true.
No
Return false.
End

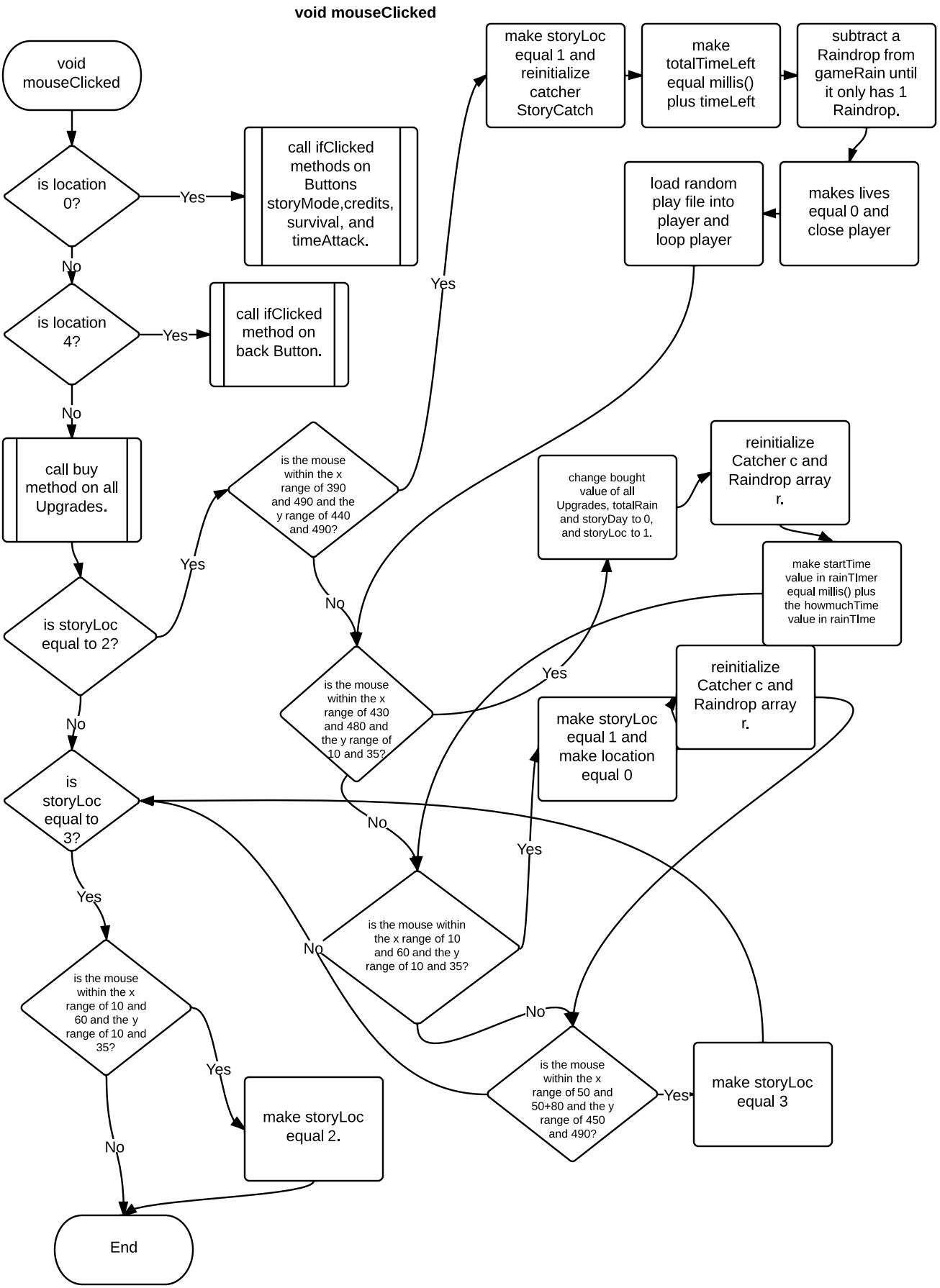
Upgrade Class



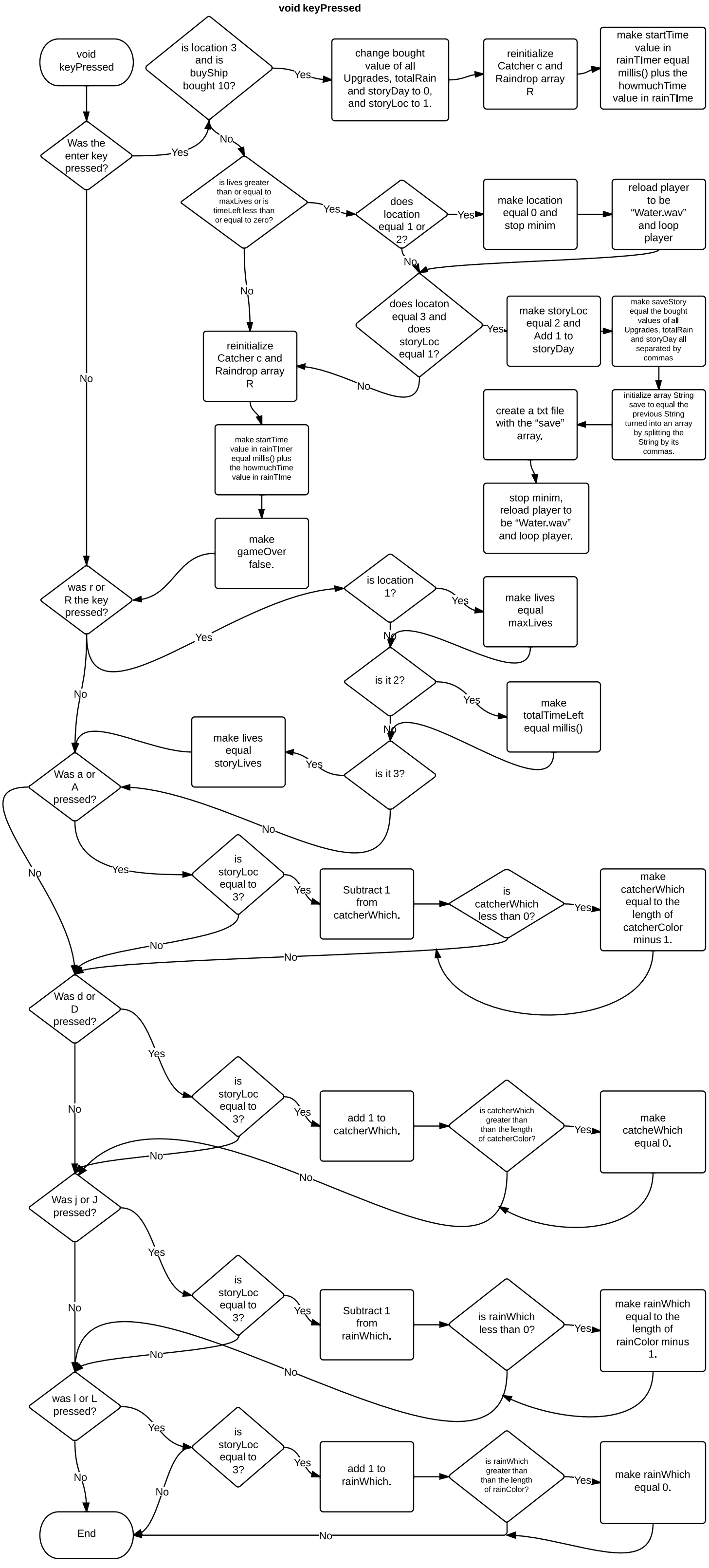
void Draw


void draw
Get rid of stroke and change fill to black with a tranparency of 50.
Create a rectangle covering the entire display.
is location -2?
Yes
void Logo
No
Is it -1?
Yes
void intro
No
Is it 4 or 0?
Yes
Display and automove catcher c.
Call display, move, and checkCatcher methods of all Raindrops in r.
Is the go function in rainTimer true?
No
Yes
Add 1 new Raindrop to r.
No
Is location 0?
Yes
change text size to 40 and text align to center
change fill to blue
display “WATER” at the middle of the screen
display the buttons storyMode, timeAttach,survival and credits.
call appear method in menuLight
No
is gameOver false?
Yes
void gameOver
void surviveMode
gameLight appear
display “Score” and value of score at 420, 50.
change text align to left and text size to 15
No
Is location 4?
Yes
Display back button
change text size to 15 and change textAlign to corner.
display credits text.
Yes
No
Change fill to white.
Is location 1?
No
is location 2?
Yes
change text align to left and text size to 15.
display “Score” and value of score at 420, 50.
is gameOver false?
Yes
gameLight appear
void timeMode
No
void gameOver
is location 3?
No
Yes
change text align to center and text size to 20
void storyMode
change fill to white
Yes
is displayRefine true and is millis() less than refineTime plus 2000?
No
make displayRefine false
display powerText at the middle of the screen.
is displayPower true and is millis() less than powerTime plus 2000?
Yes
change fill to white
display powerText at the middle of the screen.
is goPower true?
Yes
No
make displayRefine false
change fill to white
display rectange starting at 0, 490, with a width of (powerTime+10000-millis())*width)/10000) and a height of 10.
is millis() greater than powerTIme + 10000?
Yes
No
Make goPower false.
End

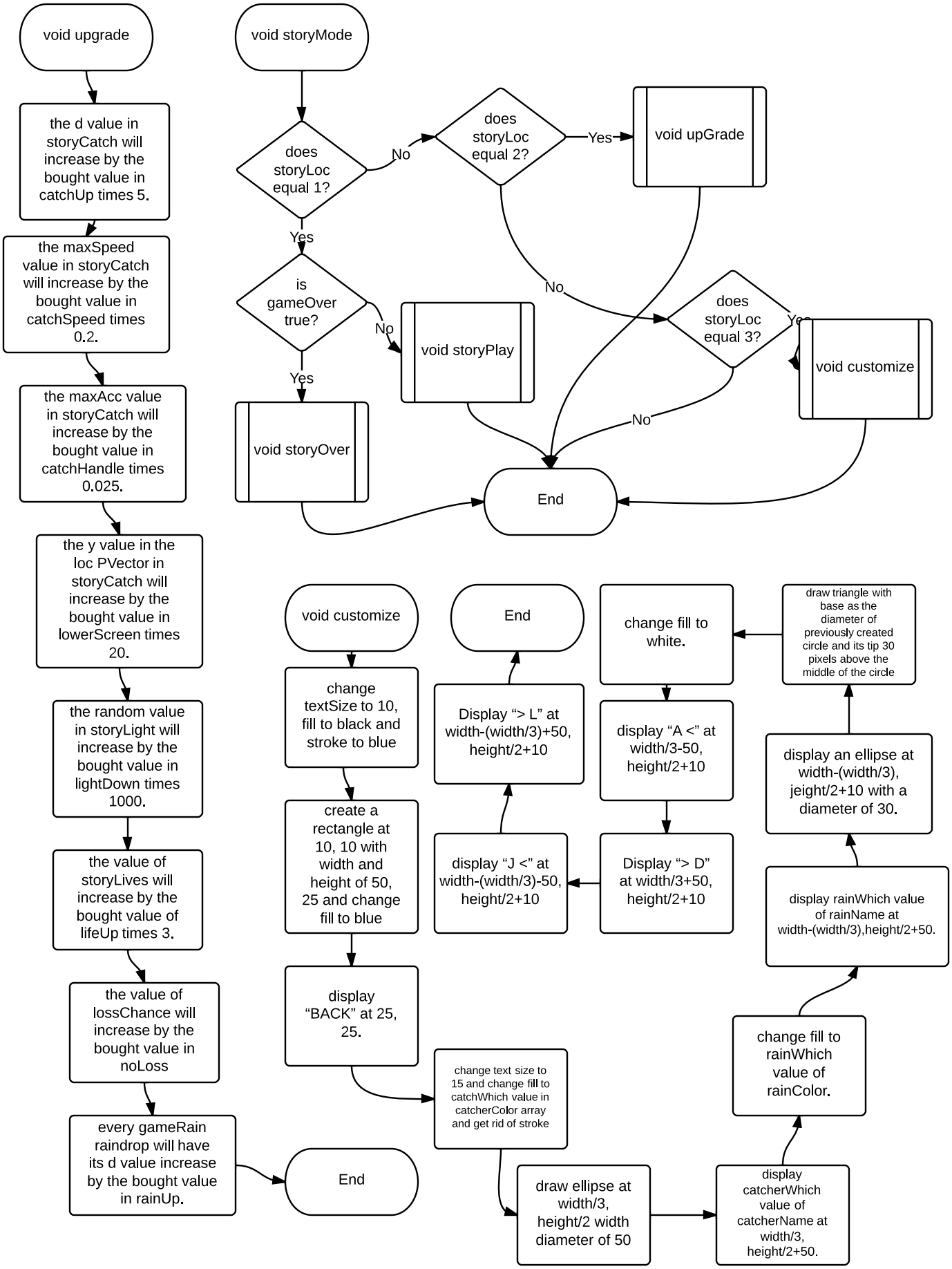
void mouseClicked

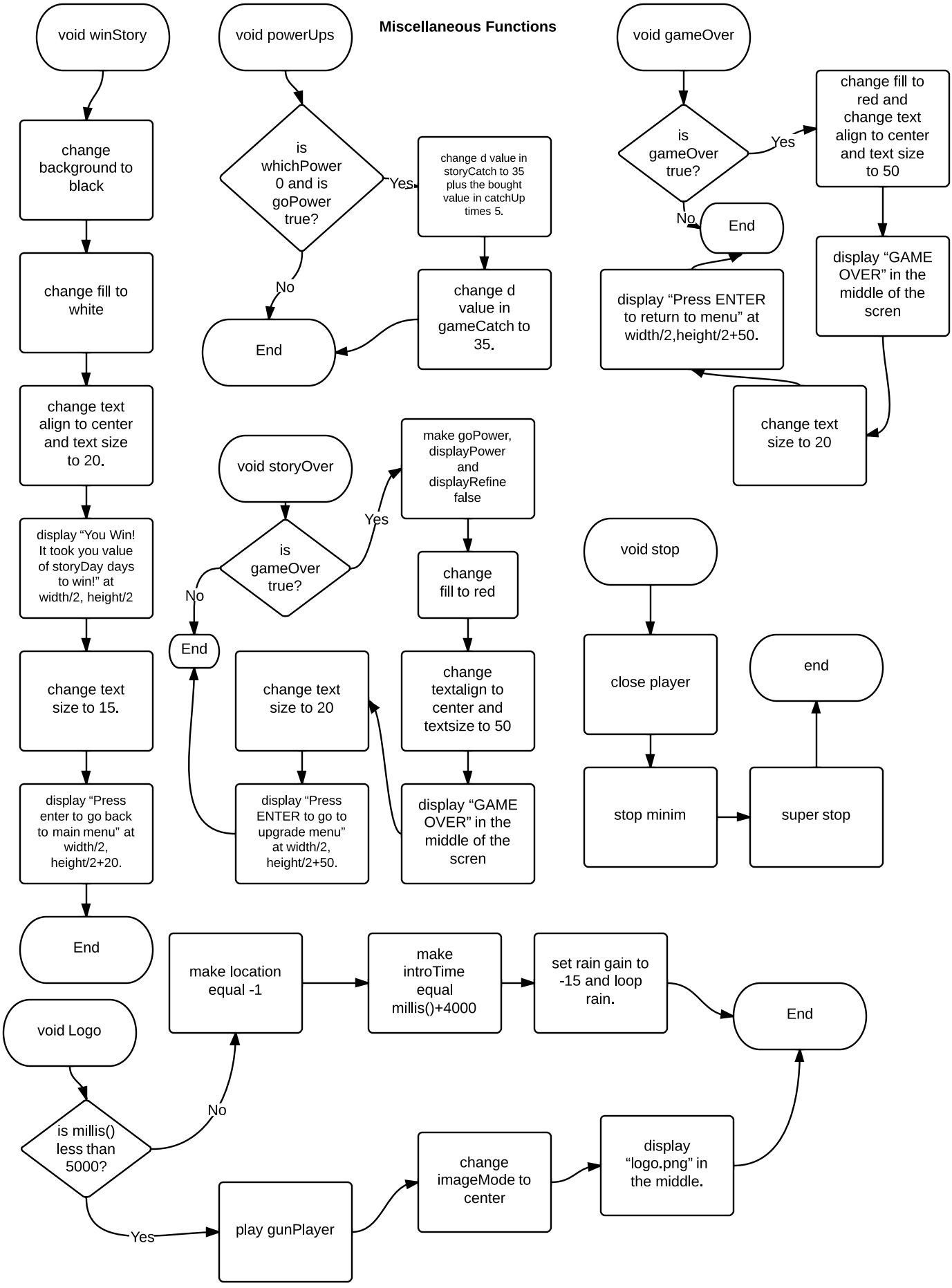


void keyPressed

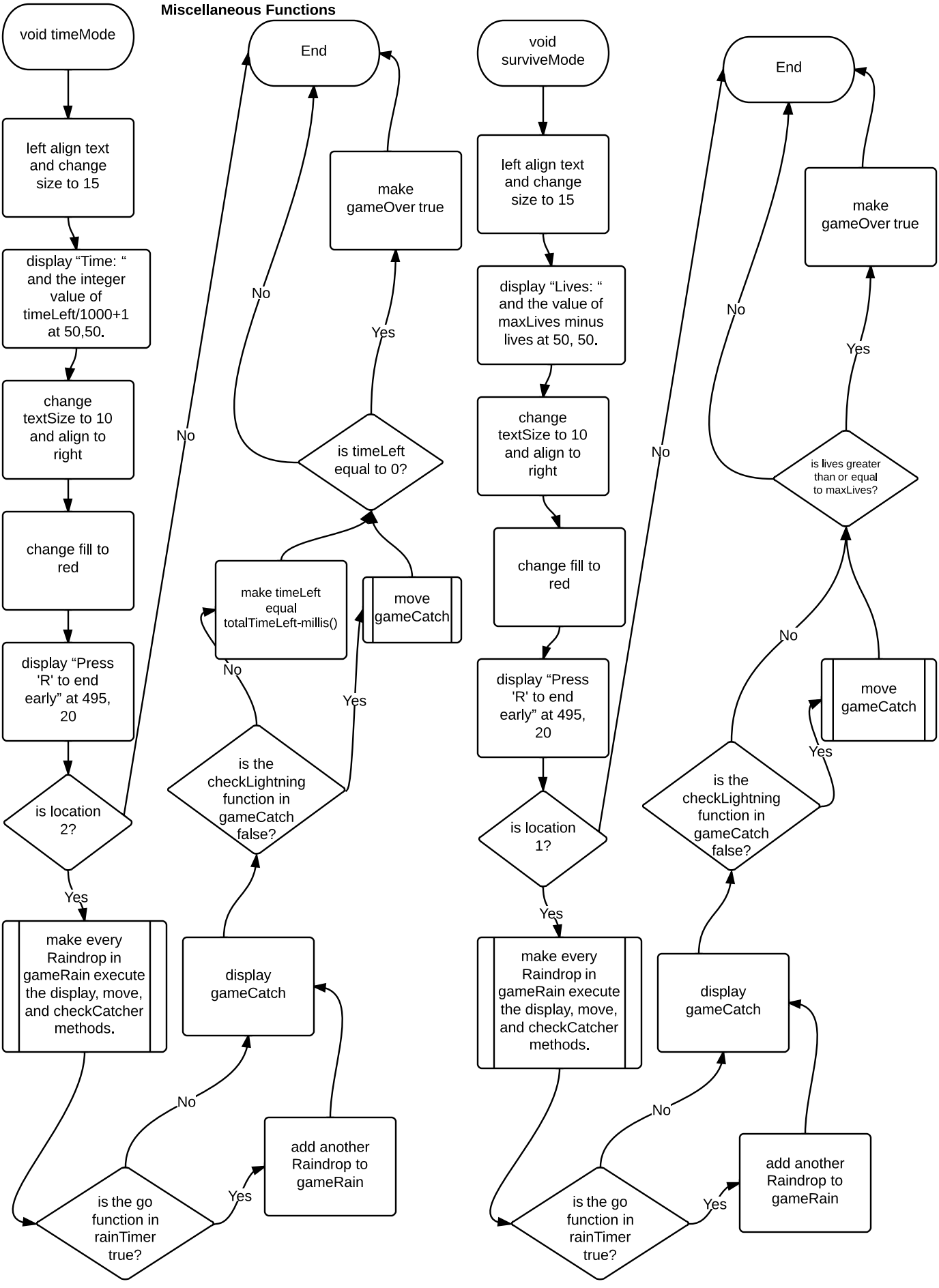


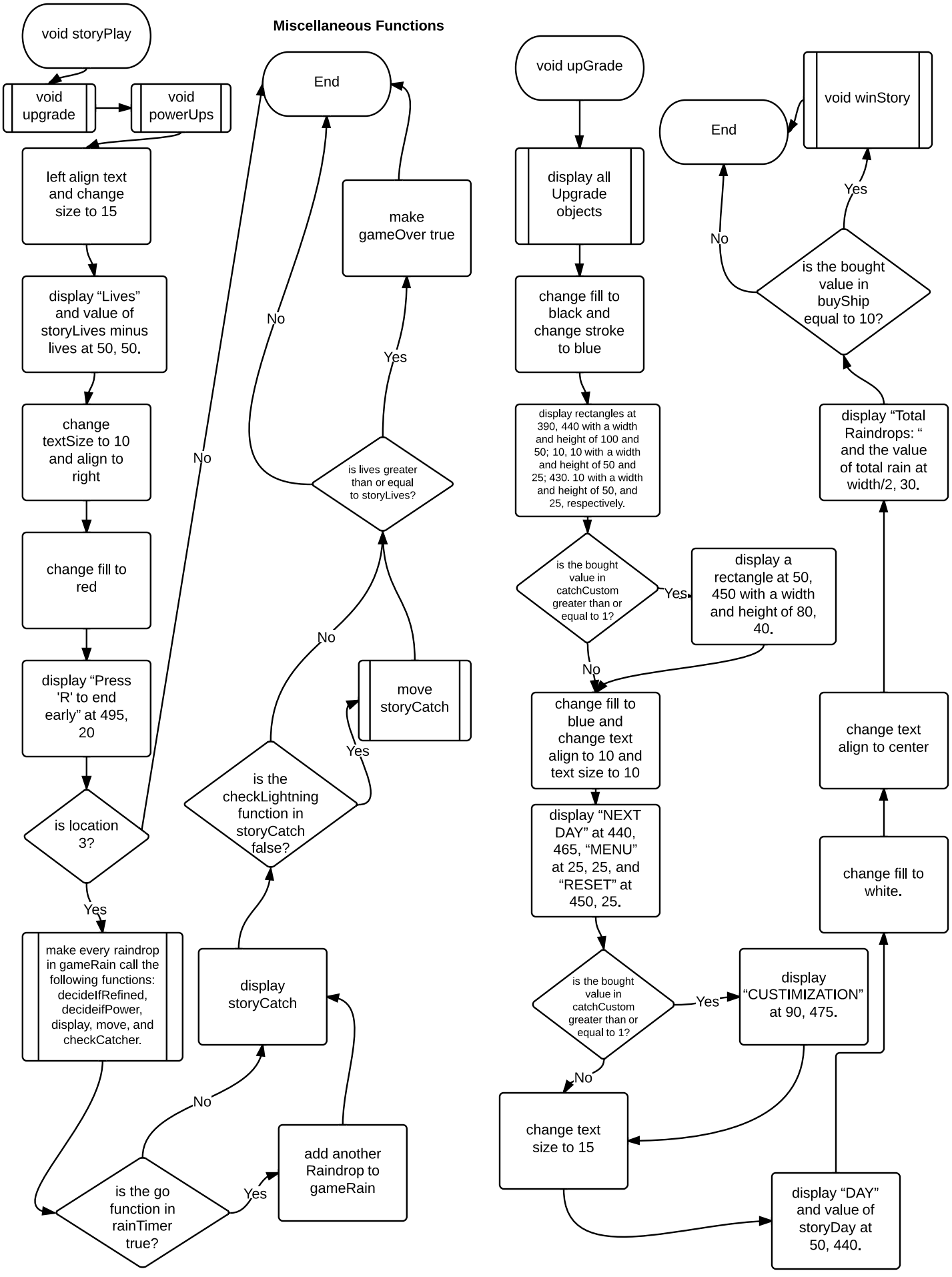
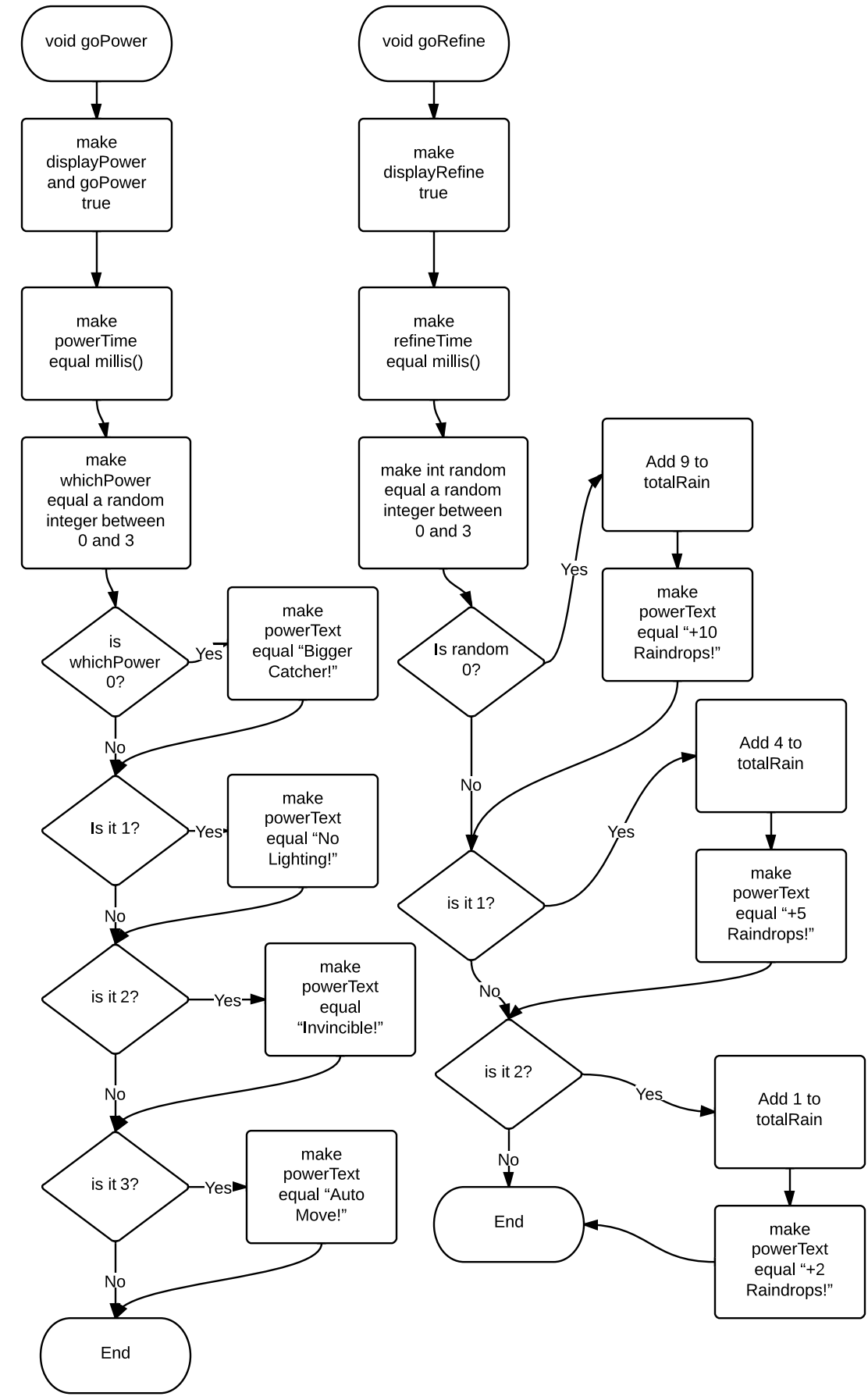
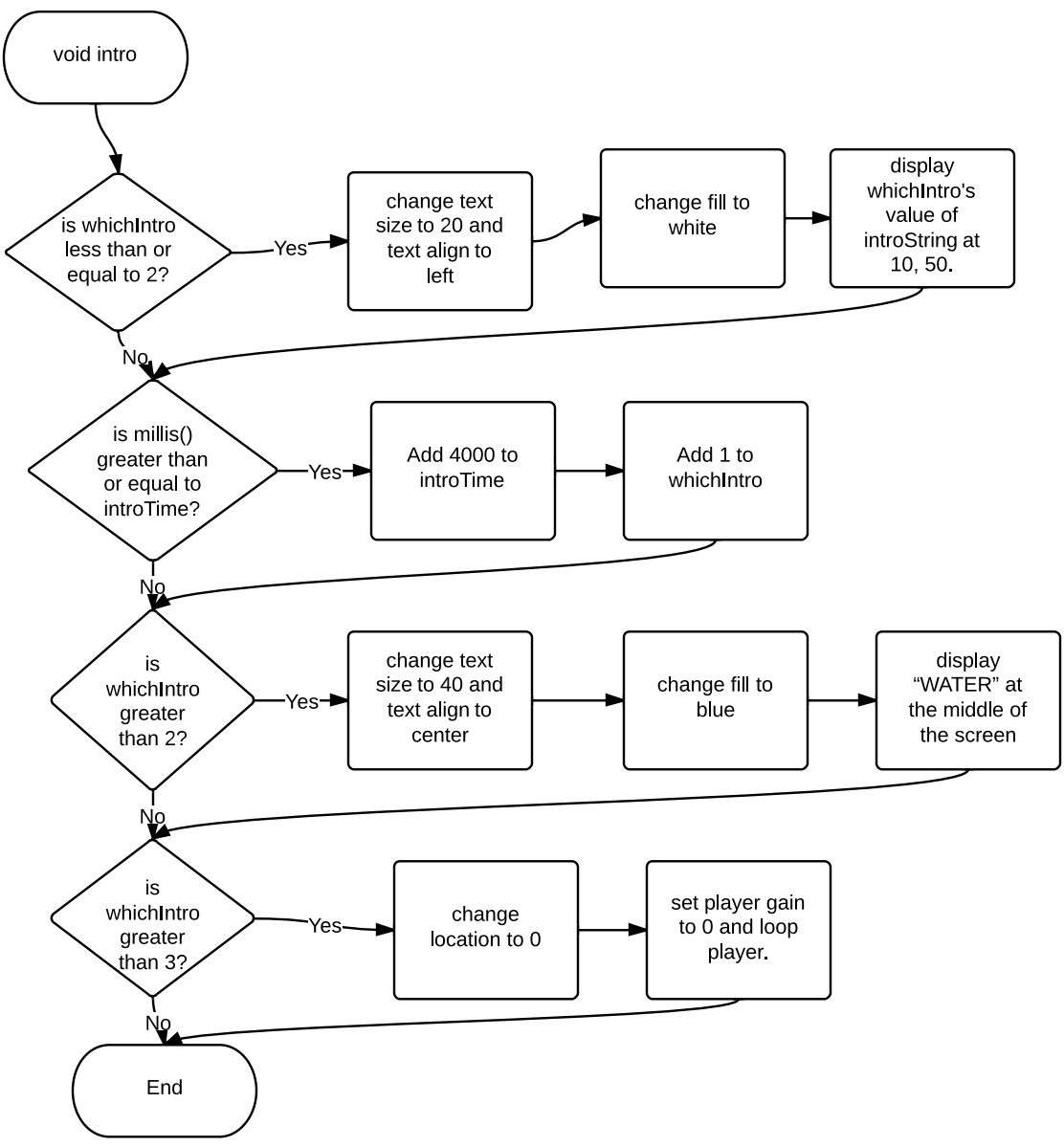
Miscellaneous Functions




Miscellaneous Functions
void winStory
change background to black
change fill to white
change text align to center and text size to 20.
display “You Win! It took you value of storyDay days to win!” at width/2, height/2
change text size to 15.
display “Press enter to go back to main menu” at width/2, height/2+20.
End
void powerUps
is whichPower 0 and is goPower true?
Yes
No
change d value in storyCatch to 35 plus the bought value in catchUp times 5.
change d value in gameCatch to 35.
End
void gameOver
is gameOver true?
Yes
No
change fill to red and change text align to center and text size to 50
End
display “GAME OVER” in the middle of the scren
display “Press ENTER to return to menu” at width/2,height/2+50.
change text size to 20
void storyOver
is gameOver true?
Yes
No
make goPower, displayPower and displayRefine false
change fill to red
change textalign to center and textsize to 50
display “GAME OVER” in the middle of the scren
End
change text size to 20
display “Press ENTER to go to upgrade menu” at width/2, height/2+50.
void stop
close player
stop minim
super stop
end
void Logo
is millis() less than 5000?
No
Yes
make location equal -1
make introTime equal millis()+4000
set rain gain to -15 and loop rain.
End
play gunPlayer
change imageMode to center
display “logo.png” in the middle.

Miscellaneous Functions




Miscellaneous Functions
void storyPlay
void upgrade
void powerUps
left align text and change size to 15
display “Lives” and value of storyLives minus lives at 50, 50.
change textSize to 10 and align to right
change fill to red
display “Press 'R' to end early” at 495, 20
is location 3?
No
Yes
make every raindrop in gameRain call the following functions: decideIfRefined, decideifPower, display, move, and checkCatcher.
is the go function in rainTimer true?
No
Yes
add another Raindrop to gameRain
display storyCatch
is the checkLightning function in storyCatch false?
No
Yes
move storyCatch
is lives greater than or equal to storyLives?
No
Yes
make gameOver true
End
void upGrade
display all Upgrade objects
change fill to black and change stroke to blue
display rectangles at 390, 440 with a width and height of 100 and 50; 10, 10 with a width and height of 50 and 25; 430. 10 with a width and height of 50, and 25, respectively.
is the bought value in catchCustom greater than or equal to 1?
Yes
display a rectangle at 50, 450 with a width and height of 80, 40.
No
change fill to blue and change text align to 10 and text size to 10
display “NEXT DAY” at 440, 465, “MENU” at 25, 25, and “RESET” at 450, 25.
is the bought value in catchCustom greater than or equal to 1?
Yes
display “CUSTIMIZATION” at 90, 475.
No
change text size to 15
display “DAY” and value of storyDay at 50, 440.
change fill to white.
change text align to center
display “Total Raindrops: “ and the value of total rain at width/2, 30.
is the bought value in buyShip equal to 10?
No
Yes
End
void winStory

Miscellaneous Functions