Load Images for Players, Slings, Arrows, and Backgrounds

Set Running Timer to false

Set Button Update to false

Set Quit Screen Showing to false

Set Mute Sound to false

Create buttons for Mute Sound, Main Menu, Quit Game, Start Game

Create Radio buttons for Client, Host

Set Sling Shooting Direction to Right

Set Last Key Pressed to Right

Set Time Elapsed to 0

Set Player1 Win to false

Set Game Lost to false

Set NetworkHOST false

Set Player 1 & 2 Health to 100

Import shooting sounds and game background music

When resetGame is called

Hide menuButton

Move quitButton to bottom right of the screen

Press the Client button for and set the NetworkHOST to false

Set Button Update and Game Run to true

Set Game Lost to false

Set Player 1 & 2 Health to 100

Set Slings, Arrows, and Player Positions to default positions

When a Button is pressed by user

If the button pressed was “menu”

Set Player 1 & 2 Health to 100

Set TimerRunning to true

Set menuShowing to true

Set buttonUpdate to true

If button pressed was “client”

Set networkHOST to false

Set ipAddressField text to “Server IP”

If button pressed was “server”

Set networkHOST to true

Set ipAddressField text to the HOST’s IP Address

If button pressed was “start”

If gametimer is running

Stop the gameTimer

Create and Start new gameTimer

Set Player1Name to the nameField text

Set Player 1 & 2 Health to 100

Set ipServer to ipAddressField text

Hide buttons not needed for in-game play

Start NetworkingThread

If button pressed was “mute”

If sound is muted

Mute sound/Stop music

If sound is not muted

Play music

If button pressed was “quit”

Set gameRun and menu to false

Set quitScreen to true

Mute sound

When a key on keyboard is pressed

If key Pressed was Left

Set keyCode1 to true

Set lastKeyPressed to “Left”

If key Pressed was Right

Set keyCode 1 to false

Set lastKeyPressed to “Right”

If key Pressed was the Space Bar

Set keyCode 1 to true

Set keyCode 6 to true

If key Pressed was Control

Set keyCode 5 to true

Set keyCode 4 to true

When a key on keyboard was released

If keyRelased was Right and keyCode 6 isn’t true and keyCode 5 isn’t true

Set keyCode 2 to false

If keyReleased was Left and keyCode 6 isn’t true and keyCode 5 isn’t true

Set keyCode 1 to false

If keyReleased was the Spacebar and keyCode 5 isn’t true

Set keyCode 6 to false

If keyReleased was Control and keyCode 6 isn’t true

Set keyCode 5 to false

When playSound is called

If menu is true and soundPlaying is false

Set soundPlaying to true

If muteSound is false

Start looping game music

When JavaGame is called

Set file locations for all images and sounds

Call playSound

Set starting coordinates for all Players, Slings, and Arrows

When AL is called

Update the graphics on screen

Update the physics running the game

Create timer which calls AL every 10ms

Start timer

When run is called

If networkHOST is true

Set Server Port Number to 1777

Create Server Socket using Server Port Number

Create print writer (network send) using connected client’s IP address

Create buffered reader (network received) using server socket

Repeat forever

Set dataReceived to String received from Client

Set dataProcessed tokenizer to dataReceived

Set Player 2 X coordinate to first token

Set Player 2 Arrow X coordinate to second token

Set Player 2 Arrow Y coordinate to third token

Set Player 2 Sling X coordinate to fourth token

Set Player 2 Sling Y coordinate to fifth token

If sixth token is a 0

Set gameRunning to false

Set menuShow to true

Otherwise

Set gameRunning to true

Set menuShow to false

Set Player 2’s Health to seventh token

Set Player 2’s Name to eighth token

Set dataSend to Player 1 X coordinate and Player 1 Arrow X coordinate and Player 1 Arrow Y coordinate and Player 1 Sling X coordinate and Player 1 Sling Y coordinate

Send dataSend to Client

If gameLost is true

Close all ports and Server Socket

If networkHOST is false

Set Server Port Number to 1777

Set socket1 to new Client Socket with IP Address and Port Number of Server

Set br to Buffered Reader data sent by Server

Set pw to Client Socket output

Set dataSend to Player 1 X coordinate and Player 1 Arrow X coordinate and Player 1 Arrow Y coordinate and Player 1 Sling X coordinate and Player 1 Sling Y coordinate

Send dataSend to Server

Repeat forever

Set dataReceived to br data received from Server

Set dataProcessed tokenizer to dataReceived

Set Player 2 X coordinate to first token

Set Player 2 Arrow X coordinate to second token

Set Player 2 Arrow Y coordinate to third token

Set Player 2 Sling X coordinate to fourth token

Set Player 2 Sling Y coordinate to fifth token

If sixth token is a 0

Set gameRunning to false

Set menuShow to true

Otherwise

Set gameRunning to true

Set menuShow to false

Set Player 2’s Health to seventh token

Set Player 2’s Name to eighth token

If gameLost is true

Close all ports and Server Socket

When physicsUpdate is called

If Player 1 Arrow X coordinate is -45

Set arrowIsBeingShot to true

If Player 1 Sling X coordinate is -45

Set arrowIsBeingShot to true

If Player 1 Arrow X coordinate is not -45

Decrease Player 1 Arrow Y by 7

When arrowShoot is called

If initRequired is true

If muteSound is false

Play shootSound

Set Player 1 Arrow X coordinate to Player 1 X coordinate + 21

Set Player 1 Arrow Y coordinate to Player 1 Y coordinate – 15

When slingShoot is called

If initRequired is true

Set Player 1 Sling X coordinate to Player 1 X coordinate + 21

Set Player 1 Sling Y coordinate to Player 1 Y coordinate – 15

When repaint is called

If quitScreen is true

Draw quitScreen background

Hide all buttons

If endgame is true

Wait 1500ms

Close the game

If menu is false and gameRun is false quitScreen is false

If networkHOST is true

Draw networkBackground

Draw text on screen telling user the game is waiting for connection, and the IP Address to connect to.

Otherwise

Draw networkBackground

Draw text on screen telling user the game is trying to connect to server, and the IP Address it is trying to connect to

If slingShot is false

If shootDir is “Right”

Add 1.02^timeElapsed to Player 1 Sling X coordinate

If shootDir is “Left”

Subtract 1.02^timeElapsed to Player 1 Sling X coordinate

Add 1 to timeElapsed

Create rectangle surrounding Player 1, Player 2 Arrow, and Player 2 Sling

If Player 1 Health is less than or equal to 0

Set Player1Win to false

Set gameLost to true

If Player 2 Health is less than or equal to 0

Set Player1Win to true

Set gameLost to true

If gameLost is true

If Player1Win is true

Draw filled black rectangle in centre of the screen

Draw text telling the player they won

If Player2Win is true

Draw filled black rectangle in centre of the screen

Draw text telling the player they won

If gameIsRunning is true and gameLost is false

If keyCode 1 is true and Player 1 X coordinate is greater than 7

Subtract 10 from Player 1 X coordinate

If keyCode 2 is true and Player 1 X coordinate is less than 1000

Add 10 to Player 1 X coordinate

If keyCode 3 is true and arrowshot is true

Set arrowshot to false

Set initRequired to true

Call arrowShoot method

Set initRequired to false

If keyCode 4 is true and slingshot is true

Set shootDir to the Last Key Pressed by user

Set initRequired to true

Call slingshot method

Set slingshot and initRequired to false

Draw Background, follow by all sprites (Player 1 & 2 Sling 1 & 2, Arrow 1 & 2)

If Player 2 Health is greater than 60

Set bar color to Green and draw Health bar beside Player 2

If Player 2 Health is greater than 20 and less than 60

Set bar color to Orange and draw Health bar beside Player 2

If Player 2 Health is less than or equal to 20

Set bar color to Red and draw Health bar beside Player 2

Draw Player 2 Health on sidebar of game

If Player 1 Health is greater than 60

Set bar color to Green and draw Health bar beside Player 1

If Player 1 Health is greater than 20 and less than 60

Set bar color to Orange and draw Health bar beside Player 1

If Player 1 Health is less than or equal to 20

Set bar color to Red and draw Health bar beside Player 1

Draw Player 1 Health on sidebar of game

Draw in Green Player 1 and Player 2 names on the sidebar (above health)

If Player 1’s rectangle touches either Player 2’s Arrow rectangle or Player 2’s Sling rectangle

Lower Player 1’s health by 3

If menu is true

Draw Menu Background, and Control title with Controls

If menu is true and buttonUpdate is true

Add actionListeners for all buttons

Set Action commands for all buttons

Set positions of all buttons

Show all buttons

All all buttons to the JFrame

When main is called

When run is called

Set Frame size to 1280 x 720

Make Frame visible and not resizable