**Work in Progress Report #2**

**Major developments/breakthroughs(reference specific code please):**

Viewport:

After integrating a viewport, the touch coordinates on an android would be different from the desktop launcher. Buttons were unclickable and dragging the guest would show a large offset. I printed the different types of input our program would detect;

public boolean touchDown(int screenX, int screenY, int pointer, int button) {

vTouch = new Vector3(screenX, screenY, 0);

//Readjusts input coordinates (vTouch.x and vTouch.y are our new input coordinates)

//Gdx.input.getX/Y >> vTouch.x/y

The ones commented out, gave back the same values which were in relation to the native resolutions. Not the viewport’s resolution.

// System.out.println(Gdx.input.getX());

// System.out.println(Gdx.input.getY());

// System.out.println(screenX); //under the touchDown function

// System.out.println(screenY);

viewport.unproject(vTouch);

However, the viewport unprojects the Vector3’s coordinates to match the viewports’ resolutions. vTouch.x / vTouch.y are our new input coordinates.

System.*out*.println("vTouchX: " + vTouch.x);

System.*out*.println("vTouchY: " + vTouch.y);

return true;

}

**Major Challenges/setbacks(reference specific code please):**

Multiple Guests: We are trying to get guests to spawn every 5 seconds. We are having trouble using arraylists to work on this. We have it spawning two guests but after that it stops spawning. The other problem we had was when you drag the first guest, the second guest goes to that spot.

Server hit detection: The server starts at the bottom right corner of the screen. The server will then move to the right to the x-coordinate of the table+30 pixels. Then, it moves up towards the table to the y-coordinate-150 pixels. The problem is after the server must move to the right to go around the table, but at the same time the server tries to move up at once making it spawn above and below the table moving to the right. The server should go to the right then go up, but instead the waiter tries to do both functions at the same time. Currently, I think the root of the problem is isUp=true even though it’s never touched and is called false at the start.

isUp = false

isAtPointYAbove = *bAboveTable*(getY(), fTY);

System.*out*.println("AT ABOVE " + isAtPointYAbove);

System.*out*.println("UP" + isUp);

if (isUp = true && isAtPointYAbove==false) {

fDy = 1;

System.*out*.println("TABLE " + fTY);

System.*out*.println("SERVER " + fY);

if (fY < fTY) {

fY += fTY;

setY(fY);

} else if(fY >fTY) {

fY -= fTY;

setY(fY);

}

}

**Any modifications to your specifications/release schedule:**

N/A

**Description of your scratch/test program:**

Scratch Server:

The scratch server is the code used to get the waiter to walk to tables whenever clicked. This is a scratch for hit detection between the tables and server. The server must avoid going through any tables/counters. The server presently is able to move behind and to the centre the clicked table (though not perfectly centre since modifications of the code have caused slight changes), but the server goes through tables. Currently, I have the server approaching the table from the bottom of the screen and moving up towards the table. Then, it must move to the right and go around the table. Unfortunately, going to the right of the table is not working out. The isUp boolean is called true even though it’s called false when created. This causes the server when “duplicate” itself spawning causing the server to move to the right and up at the same time. This makes the server glitch and show up in 2 places each millisecond. I found that the isUp boolean is always true for some reason even though declared false at the very top. This is potentially the root of the problem.

isAtPointYAbove = *bAboveTable*(getY(), fTY);

System.*out*.println("AT ABOVE " + isAtPointYAbove);

System.*out*.println("UP" + isUp);

if (isUp = true && isAtPointYAbove==false) {

fDy = 1;

System.*out*.println("TABLE " + fTY);

System.*out*.println("SERVER " + fY);

if (fY < fTY) {

fY += fTY;

setY(fY);

} else if(fY >fTY) {

fY -= fTY;

setY(fY);

}

}

**Describe the generic concept you needed to test out:**

Scratch Server: The generic concept needed to test out was hit detection between the server and table. When the server hits a table it will go around the table. This must be implemented to all tables and counters existing in the game

**Source any website/book that helped you with that concept:**

<https://stackoverflow.com/>

<https://libgdx.badlogicgames.com/ci/nightlies/docs/api/>

<https://github.com/DaphneLai/POLYGONE-Final/blob/master/core/src/gdx/objects/Shape.java>

<https://github.com/Ameer-Mushani/Sort>

<http://3ui.sgrondin.ca>

**Describe the code and the lesson that you learned from it:**

* Viewport: Helped referenced how to use Viewports and Cameras, as well as resolved our input issue (refer to “Major developments”)
* Scratch Server: I learned how to use functions with booleans and how to mentally go through the math of coordinates.

**Describe any challenges that you enjoyed in integrating this scratch code into your major project:**

* Viewport: Viewports had to be passed around throughout the program, and our new touch coordinates need to be declared. It’s just redundant.

**Peer Assessment:**

Sarah: 100

Maddie: 100

Daphne: 100