May 11th:

Added a few JavaDocs that I missed.

May 7th:

I thought weight and power was a bad idea so I removed them.

May 6th:

Started to implement weight and power for the birds.

May 5th:

Finished JavaDocs and Umlet, started adding size to the pipes.
Implemented size and speed.

May 3rd:

Added saving and loading (only works for basic birds though) and finished the Controller tests.
TestFrame done.
TestPanel done.
Controller and AdvancedBird JavaDocs done.
Worked on FlapPanel javadocs, but still have a bit to do.

May 1st:

Created Advanced Birds and set up save and loading. I still need to do toStrings and make buttons for them though.

Apr 29:

Made the panel draw two birds, still need to make it so that if one bird dies, it doesn't end the game.

Did controller javadocs.

I need to set up UML, Finish JavaDocs, advanced bird, ArrayList in the main panel, tests, File IO.

Apr 27:

Set up a reset and randomly generated neural nets.

- Set up fitness level.
- Fix the bird.
- Make more birds.

Fitness level very basically set up, but more importantly the bird looks better now. (thanks Kirby :))

I have started to set up fitness and I am now going to make it so that there are more birds.

I have created the bird HashMap, but I need to make it draw multiple birds.

2:00

- Things I still need to do for all specs:
    - UML Diagram
    - Javadoc
    - Link to github classroom (can't remember if I've done this or not

    - Inheritance in the model (likely with an advanced bird that has two nodes in the hidden layer)
    - Tests
    - ArrayList (likely for list of fitness scores)
    - File IO
- General Things:
    - Get fitness to work.
    - Drawing more birds.

Apr 25:

I have completed the player-based game, and started working on the bird AI.
Next Steps:

- Make mutationBias actually work.
- Make the net actually output a jump.

I have completed

Apr 21:

I have made the pipes and bird move, and set up collision.

- Add a score

Created the score.
Next objective:

- Set up model for a bird and get it to work with a dumb AI (probably with randomness to start)f

Apr 20:

Drew a stupid looking bird that will need polishing later, and finally got the bird to move on click without it just stacking on top of the previous one.
Next objectives:

- Make bird fall and pipes move: should be accomplished with a thread that pauses and then moves the things. Bird movement might feel weird, but will be polished if I have time.
- Set up collision: I might have to cast the polygons into areas because areas have an intersects method.
  https://docs.oracle.com/javase/7/docs/api/java/awt/geom/Area.html#intersects(java.awt.geom.Rectangle2D)

Long Term:

- Polish bird
- Add bird to model package.
- Set up genetic algorithm
- Add a side screen with data.
- Polish movement if time allows.

Apr 19:

We discussed specs again in class. I have two concerns: one inheritance. And two having two objects in my model. I will definitely have a bird in my model, but what else could I have? And what about inheritance? Idk.

2:08:

Successfully created a new simple GUI and drew two pipes on the screen. Next steps will be creating the bird, making the bird jump and making the bird fall and pipes move to the left.

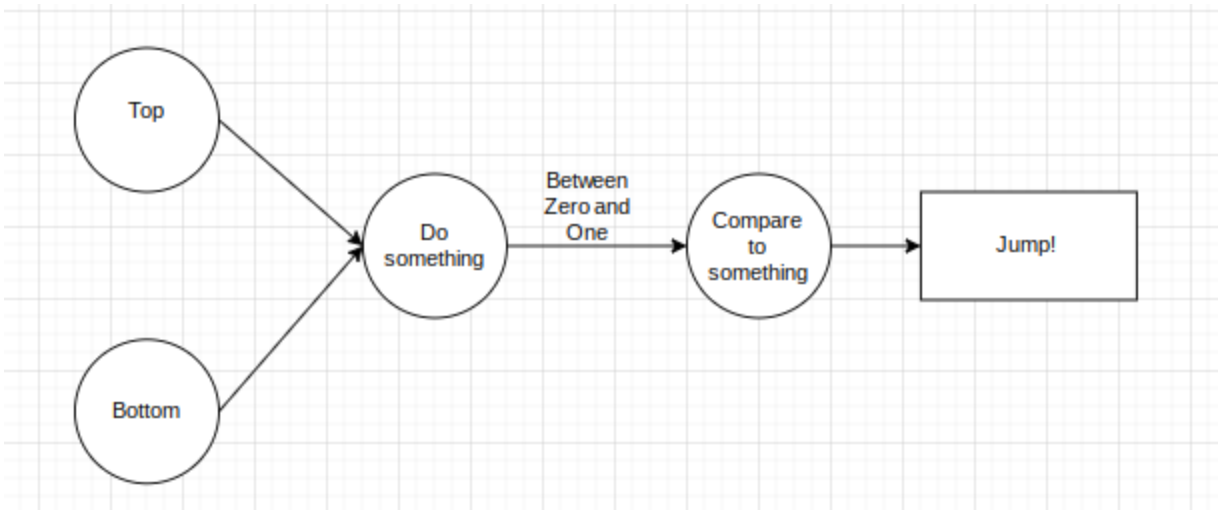
- Create the bird:
    - Simple drawing.
- Bird Jump:
    - Could either use a mouse listener or a keyboard listener for this, just translate the polygon in theory.
- Bird Fall and pipes move:
    - Simply create a thread timer and move the bird down and translate pipes left. WIll also have to figure out how to make the pipes return back to the right end of the screen.

Long term:

- Figure out how to set up collision for when the bird touches a pipe.
- Create the model for the bird.
- Set up a genetic algorithm.
- Polishes the looks.
- Add a sidebar that displays best fitness scores and important data.

Apr 18:

Changed idea back to Flappy Bird AI, created a simple diagram below:



Apr 11:

I have set up acceleration and stuff, but I desperately need rotation for it to work.

Mar 5:

- Set up Controller and Runner.
- Set up basic GUI.
- Tried to get a keyListener to work. I guess it could work, but would be kind of weird to have to click on a text area before you can drive. Maybe the text area can start focused and not be visible?

Feb 28:

Some ideas:

- machine learning stoplight or flappy bird or something. I would like something more than a decision tree. Probably not neural net, so maybe like a genetic algorithm?
- Pokemon battles.
- Maybe a platformer?
- I would love to do something cool with AI.

- Turn based RPG?
- Turn based strategy?
- AI learns to play a platformer?
- Pong AI?
- Civilization simulator, a very simple Rimworld.
- Fishing game?
- Simple clicker game.
- Wizard101.