Development Report:

References:

Sevarihk (March 16th, 2022) Available at:

<https://opengameart.org/content/shark-sprites-animated-4-directional>

(Accessed: 21/12/2024)

daniellking1771(no date) Available at:

<https://imdaniell.itch.io/colourful-fish>

(Accessed: 10/01/2025)

Solid Backgrounds (no date) Available at: <https://www.solidbackgrounds.com/3840x2160-dark-blue-solid-color-background.html>

(Accessed: 10/01/2025)

Inspiration:

Processing Foundation et al.(no date) Available at: <https://discourse.processing.org/t/bubble-popping-animation/15341>

(Accessed 10/01/2025)

Some of the classes feature code from David that was made during Live lessons on Mondays.

AI:

I asked ChatGPT about how an animation of an explosion would work for processing java and this is the prompt and output I got:

How do you do an animated explosion in processing java?

The update() method increases the explosion's radius, and display() draws it on the screen.

The explosion remains visible for a set duration (duration), after which it is removed from the list.

Version control:

I made 8 versions of the code to make sure that I could backtrack if any problems occurred.

Snippets:

ScrollBakcground:

A screen shot of a computer code

Description automatically generated

Respawn:

A computer code on a black background

Description automatically generated

KeyPressed:

A computer screen shot of a computer code

Description automatically generated

ArrayList Import:



GameState:

A screen shot of a computer

Description automatically generated

Features:

Scroll background:

The two background images are drawn next to each other. When the first background moves completely out of view, the position resets to maintain a continuous scroll.

When the player moves left or right, the scroll background creates an illusion that the player is moving in that direction. The same when the player moves up or down.

Over time, more enemies appear, in random quantities and at random heights.

Fish class:

All the enemies are set to “spawn” at the same distance from the player as to not collide instantaneously with the player.

There speed is random when moving across the x axis.

The Fish do not go above the vertical bounds of the screen

Is an abstract class to allow other classes to extend it.

Player class:

When the player collides, it needs to detect where the collision is from, so it must detect the position of the obstacle from where the player has hit it.

Renders the image like the Fish class does, fallbacks on a black rectangle if the image does not display.

Animation class:

Creates a little bubble that pops when the player collides with an enemy.

It sets a small amount of time for the explosion to happen as to not get in the way.

It sets the max radius that the explosion expands to.

Key Pressed:

When the keys are pressed, several actions occur:

E.g. When the left key is pressed, the background will move to the right and the fish enemies will move to the right, to create the illusion that the player is the one that is moving.

Class Inheritance:

The fish class is extended to the enemy’s class.

The shark and stingray then extend the enemy class.

This allows for easier code repetition and requires less code to be needed for the shark and stingray class.

If I were to add more enemy’s, it could easily be done due to the class inheritance.

ArrayList of obstacles:

This allows for multiple enemies of the same type to be created on the screen without needing to create them individually.

Asset Log:

A blue square with white dots

Description automatically generated

A group of fish in different directions

Description automatically generated



A blue hat with a black background

Description automatically generated