Final Project Lab Report

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Introduction:

For this lab I am going to make a lazy river simulator using path following, separation and particle systems. I am going to create rag dolls that float down a lazy river. The user will be able to splash the rag dolls and one of the rag dolls will be able to pee.

Methods:

Create a point class that has a path following methods similar to what we've used before. The point class additionally has a border collision methods that makes sure it stays within the screen, and a particle collision method that checks collisions with particles.

Create a segment class that takes two points as arguments in the constructor. Create an update methods that ensures the distance between the two points remains the same. Create a display method that displays the segment as a line.

Create a RagDoll class that has two array lists, one for points and one for segments. Add points and segments to the array lists in positions that make the overall construction similar to a rag doll.

Create a particle class which is similar to particles we've seen before which the exception that the display methods displays the particle as the word "splash."

Create a particle system for the particles similar to particle systems we have already seen.

Create a PeeDrop class that is a child class of the Particle class. The PeeDrop class has a separate method and a path following method similar to ones we've already used.

Create a Pee class which is just a particle system for the PeeDrops.

Create a Path class similar to ones we've seen.

In the set up and draw methods, set the points on the ragdoll that follows the path to be the hands and the head

Have the pee particle system come from one of the rag dolls groin areas when the ''p'' key is pressed

Have the splash particle system come from the mouse location when the mouse is pressed.

Results:

I have successfully created a lazy river simulator complete with splashing and peeing. I find it to be visually pleasant while also giving the user a very realistic experience of a lazy river.

Conclusion:

I made a funny lazy river simulation.

Credits/Acknowledgements:
I used resources and code examples from Daniel Shiffman's book: *The Nature of Code*

Citations :

Shiffman, Daniel, Shannon Fry, and Zannah Marsh. The Nature of Code. D. Shiffman, 2012.