Animation Description:

Our animation depicts 2 colorful snakes slithering through a pair of 3D cylinders centered on the screen. The snake moves in a sin or cos graph pattern using the lerp method. It will be changing colors as it moves like in agario. The snake will move through two 3D cylinders which are on the screen. These cylinders will have hands on them.

Objects:

The following objects are present and animated within the sequence:

Snake Body (2) — a chain of approximately 15 spheres that form the snake's torso.

Snake Head Sphere (2)— a slightly larger sphere at the front of the chain that leads the movement.

Eyes (2) — two circles on the sphere head.

Tongue (2)— a thin, forked shape (two elongated scaled spheres or cylinders) that periodically extends and retracts from the head in a flicking animation.

Cylinder 1 (Left) — a static 3D hollow cylinder rendered in the center-left of the screen. The snake passes through its interior.

Cylinder 2 (Right) — a static 3D hollow cylinder rendered in the center-left of the screen. The snake passes through its interior.

Cylinder Hands 1(Left) — hands that move on their own attached to Cylinder 1.

Cylinder Hands2(Right) — hands that move on their own attached to Cylinder 2.

Duration:
The animation is expected to run for approximately 8–12 seconds as a seamless loop.

Classes:

1. Snake 1 Class contains:

- Head — a Sphere instance (slightly bigger than the rest)
- Body — a list of 15 spheres each one being a Sphere with an index number attached
- Eyes — two small Sphere instances that are positioned relative to the Head
- Tongue — its own object that attaches to the Head and handles the flick animation

2. Snake 2 Class contains:

- Head — a Sphere instance (slightly bigger than the rest)
- Body — a list of 15 spheres each one being a Sphere with an index number attached
- Eyes — two small Sphere instances that are positioned relative to the Head
- Tongue — its own object that attaches to the Head and handles the flick animation

3. Cylinder Class 1 contains:

- Cylinder: The 3D Cylinder in the middle of the screen
- Hands: attached to the cylinder

4. Cylinder Class 2 contains:

- Cylinder: The 3D Cylinder in the middle of the screen
- Hands: attached to the cylinder

5.ColorCycler — tells each sphere in the snake class what color to be

Transformations:

Snake Class (1 and 2):

Head:

Translation — leads the path using the sine wave formula with the lerp method.

Body Segments:

Translation — each segment follows the sine wave, offset by its index so each one lags behind the one in front. This movement uses the lerp method.

Eyes:

Translation — positioned relative to the head using a local offset so they move with it automatically.

Tongue:

Translation — attached to the front of the head and does not move.

Cylinder Class (1 and 2):

Cylinder:

Translation: It will not be moving

Hands:

Translation: It will move up and down in a linear motion.

Tasks:

Steven will work on the snake class 1.

Advaiith Pathi will work on snake class 2.

Harris will work on both the Cylinder classes and the color cycler.

Once our individual classes are built. We will then work together to merge the code together so it runs in one animation.

Progress:

We have no progress on the project but in the following week will work on our tasks.