Aquaculture Activity Diagram

User input goes into start_simulation function

Is input valid?
- no → (end)
- yes → Simulation function called

Simulation function called → Sim runs for duration specified by user

Sim runs for duration specified by user → function of fish class determine actions and status of fish

function of fish class determine actions and status of fish:
- Fish eats
- Fish pees
- Fish poops

Fish eats / Fish pees / Fish poops → Update tank chemicals

Update tank chemicals → Is concentration High? (Ammonia or Nitrite)

Is concentration High? (Ammonia or Nitrite)
- yes → Update fish health
- no → (back to have we iterated)

have we iterated to val of duration?
- yes → (end)
- no → Sim runs for duration specified by user

Update fish health → Is health <= 0?

Is health <= 0?
- Yes → add fish to dead fish array
- no → have we iterated to val of duration?

Legend

action ⟶ action

Decision point ◇

action ▱