Alice 3 Programming Assessment: Inheritance

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June 2017
Assessment Overview

• This assessment is designed to cover the topic of inheritance in Alice 3 and how to create methods inheritable by multiple objects. *It should take 15-20 minutes to complete this challenge.*

• Before attempting this challenge, please complete the tutorial: “Creating a Fancier Fox and Inheritance in Alice 3.”
Starter World

• Open the inheritanceAssessmentStart.a3p world
• You will see that there are already objects in the world: caiman, cow, bear, arapaima, grass, and carp.
The Problem

• Our goal is to have each animal in the background eat the food in front of them by only writing one procedure and calling it three times.

• To do this, we will need to think about how to use inheritance!

• Hint: What do they all have in common?
Eat

• We need to write an “eat” procedure that all of the animals can access.
• Use a parameter for the food that is the lowest level type on the hierarchy that includes all the foods.
• For our purposes, eating will mean:
  • Turning to face the food
  • Moving a certain distance forward to be close to the food
  • Having the food disappear
World.myFirstMethod

• In order for our animals to eat their food, we will need to have a call to our eat method from each of the background animals in our myFirstMethod

• If all the animals do not have access to your eat method, then you need to think about the inheritance again.
Completion

• Press play and each of the animals should turn to face their food, move toward their food, and the food should disappear.

• If this happens, the assessment is complete!

• You can check with the sample solution online.