CompSci 94
Review for Exam 2
April 2, 2019

Prof. Susan Rodger
Class Today

• Review for Test 2 – Test is Thursday

• Look at old Test 1’s and Test 2’s.
  – Lot of reading code, some writing code
  – On old Alice 3 Test 2’s – ignore problem 1
Events 1

- addSceneActivationListener
  declare procedure sceneActivated
do in order
  this myFirstMethod

- addTimeListener
  declare procedure timeElapsed
  do in order
  drop statement here

- addKeyPressListener
  declare procedure keyPressed
  do in order
  if event isKey is true then
    drop statement here
  else
    drop statement here
Events 2
Events – when does it start, how does it work?

• sceneActivated

• addTimeListener

• keyPressed
Events – when does it start, how does it work? (part 2)

- addMouseClickOnObjectListener

- addCollisionStartListener

  Uses the variables: getSthingFromSetA, an object from the first array, and getSthingFromSetB, an object from the second array, such that these are the two objects that collided.
How do you create a Scorer (or counter)

- A scorer/counter
How do you create A Countdown Timer

• Need a number and 3D text object
• Update the number by subtracting and then update the 3D text to display it
• Write Procedures:
  – InitializeTimer, UpdateTimer
• Need an addTimeListener Event
  – Will update every specified time unit
Looping structures - when and how to use each one

• Count loop

• While loop
Looping in Array – when and how to use each one

• For each in

• Each in together

• Indexing loop
Randomness

• How do you generate a random number?

• How do you store a random number?

• How do you use a random number?

• What other type of random can you create?
• How do you create an array?

• Where should you create an array?

• How do you access a value in an array?

• What is the advantage of using an array?

• How do you find the position of the first red animal in an array?
How do you force events to only happen at certain times?

- Use an if statement with a condition that must be true
  - If statement is first thing in the event and must be true for the action in the event handler to happen
- Use a state variable – scene property
  - Use a string with values such as "setup", "playlevel1", "setupLevel2", "playLevel2", and "gameover"
  - You control game flow
How to study for the exam

• Practice problem solving
• Redo a classwork, or a procedure or function for a classwork
• Try redoing something from a lecture
• Rewatch videos, redo online quizzes
• Understand topics – reread over lecture notes
• Look at old Alice 3 test 1’s, look at old test 2’s but not problem 1 on test 2’s
• Old Alice 2 tests – think, how would I do this in Alice 3