

CompSci 94 Review for Exam 2 November 5, 2020



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CompSci 94 Fall 2020

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Class Today

- Review for Test 2 – Test is Tuesday, Nov 10
- 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 on Spring 18 and Fall 18 Test 2 – we did not do the event pointOfViewChanged
- Old quizzes back up later today

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Events 1

```
this addSceneActivationListener  
  
declare procedure sceneActivated  
do in order  
  this myFirstMethod  
  
this addTimeListener 1.0 add detail  
  
declare procedure timeElapsed event getTimeSinceLastFire  
do in order  
  drop statement here  
  
this addKeyPressListener add detail  
  
declare procedure keyPressed event isLetter event isDigit event getKey event isKey key:  
do in order  
  if event isKey S is true then  
    drop statement here  
  else  
    drop statement here
```

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Events 2

```
this addMouseClickedOnObjectListener, setOfVisuals new Visual[] { this.bunny, this.panda, this.panda2, this.panda3 } add detail  
  
declare procedure mouseClicked event getScreenDistanceFromLeft event getScreenDistanceFromBottom event getModelAt  
do in order  
  if event getModelAtMouseLocation == this.panda is true then  
    drop statement here  
  else  
    drop statement here  
  
this addCollisionStartListener new SThing[] { this.bunny }, new SThing[] { this.panda3, this.panda2, this.panda3 } add detail  
  
declare procedure collisionStarted event getSThingFromSetA event getSThingFromSetB  
do in order  
  drop statement here  
  
this addDefaultModelManipulation
```

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Events – when does it start, how does it work?

- sceneActivated
- addTimeListener
- keyPressed

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

- addMouseClickedOnObjectListener
- addCollisionStartListener

Events – when does it start, how does it work? (part 3)

- defaultModelManipulation

How do you create a Scorer (or counter)

- A scorer/counter

How do you create A Countdown Timer

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?

Arrays

- 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?

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Problem: Given an array of pandas named **pandas**. Double the size of every other one starting with the second one in the array, one at a time

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How do you force events to only happen at certain times?

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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 except Spring 2019
- Old Alice 2 tests – think, how would I do this in Alice 3

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