

CompSci 94 Review for Exam 2 November 11, 2021



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CompSci 94 Fall 2021

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Class Today

- Review for Test 2 – Test is Tuesday, Nov 16
- 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.panda, 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 and old test 2's
- Old Alice 2 tests – think, how would I do this in Alice 3

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