

# CompSci 94

## Review for Exam 2

November 5, 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.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, 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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