

CompSci 94

A game with two levels

November 12, 2024



Prof. Susan Rodger

CompSci 94 Fall 2024

1

Announcements

- Assignment 6 (Final project) is out – see deadlines on Assignment page
- TODAY, Nov 12: deadline to request an assigned partner
- Added 4th free extension!
- Exam 3 is Nov 19
 - See exam 3 study materials on Nov 19 date on our calendar page
 - Some review today, some next time

CompSci 94 Fall 2024

2

Exam 3 Logistics

- Exam 3 is on Tuesday, Nov 19
- Covers topics through Thursday, Nov 14 lecture
- Old tests are on the calendar web page
- Exam 3 is on paper
- See Exam 3 reference sheet – part of the exam
- Exam 3 is your own work
- Bring only a pen or pencil

CompSci 94 Fall 2024

3

Exam 3 topics

- Topics from last time (loops, arrays, ifs, procedures, parameters, etc)
- Array index loops (see penguin classwork)
- Writing functions
- Event programming
- Changing Scenes (we do on Thursday)

CompSci 94 Fall 2024

4

Events 1

The image shows three event listener blocks in a Scratch code editor:

- addSceneActivationListener**: A block with a "this" trigger. The procedure **sceneActivated** contains a "do in order" block with a "this myFirstMethod" block.
- addTimeListener**: A block with a "this" trigger and a time value of 1.0. The procedure **timeElapsed** contains a "do in order" block with a "drop statement here" block.
- addKeyPressListener**: A block with a "this" trigger. The procedure **keyPressed** contains a "do in order" block with an "if" statement: "if [event] isKey [S] is true then" followed by a "drop statement here" block, and an "else" block followed by another "drop statement here" block.

CompSci 94 Fall 2024 5

Events 2

The image shows three event listener blocks in a Scratch code editor:

- addMouseClickedOnObjectListener**: A block with a "this" trigger and a set of visuals containing "this.bunny", "this.panda", "this.panda2", and "this.panda3". The procedure **mouseClicked** contains a "do in order" block with an "if" statement: "if [event] getModelAtMouseLocation == [this.panda] is true then" followed by a "drop statement here" block, and an "else" block followed by another "drop statement here" block.
- addCollisionStartListener**: A block with a "this" trigger and a set of things containing "this.bunny", "this.panda", "this.panda2", and "this.panda3". The procedure **collisionStarted** contains a "do in order" block with a "drop statement here" block.
- addDefaultModelManipulation**: A block with a "this" trigger.

CompSci 94 Fall 2024 6

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

- sceneActivated
- addTimeListener
- keyPressed

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

- defaultModelManipulation

How do you create a Scorer (or counter)

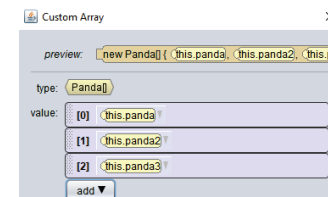
- A scorer/counter

Looping in Array – when and how to use each one

- For each in
- Each in together
- Indexing loop

How do you create A Countdown Timer

Q1) Given an array of pandas, how do I create an array of objectMarkers that match the pandas in the same order



Q2) Given pandas moved, what type of loop do you use to get them all back to their objectMarkers?



CompSci 94 Fall 2024

22

Q3) Given pandas moved, explain in words how to get them all back to their objectMarkers?



CompSci 94 Fall 2024

24

Q4: If we want to play a two level game, what might be the best game flow?

Class Today

- Build game with two levels



CompSci 94 Fall 2024

26

CompSci 94 Fall 2024

28