

CompSci 94

KeyPressListener, Collision Listeners

November 7, 2024

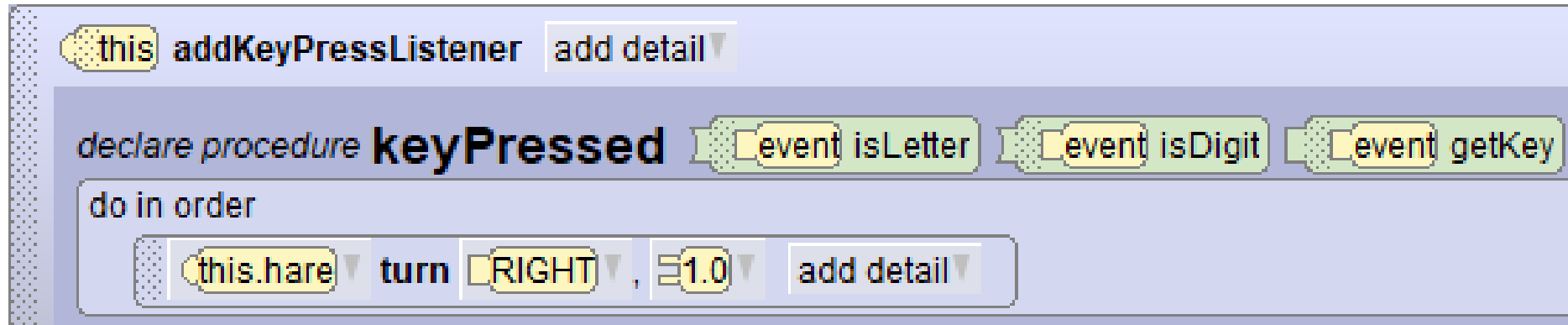


Prof. Susan Rodger

Announcements

- Assignment 5 is due today
- Assignment 6 out, due Nov 21
- Watch videos and online quiz for Thursday
- Exam 3 is November 19
 - Study materials on Nov 19 date on our calendar

Q1: How do I get the hare to turn around?



Q2: What happens if I press letter A?

If I press the letter T?



Q3: What happens if press letter A?

If press letter T?



Q4: What does Combine and Fire_Multiple do?

The image shows a Scratch code editor with the following code:

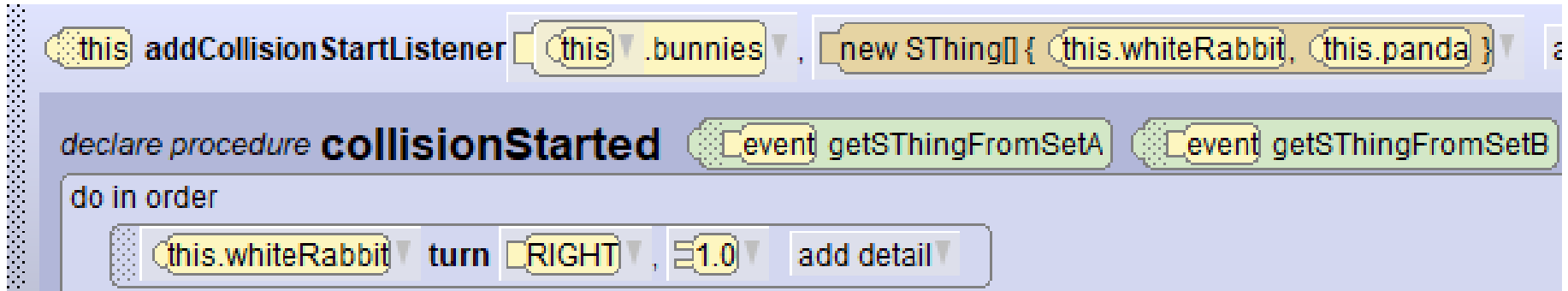
```
this addKeyPressListener, multipleEventPolicy COMBINE , heldKeyPolicy FIRE_MULTIPLE
```

declare procedure keyPressed [event isLetter] [event isDigit] [event getKey]

do in order

- if [event isKey RIGHT] is true then
 - [this.whiteRabbit move RIGHT, 0.25] add detail
- else
 - if [event isKey UP] is true then
 - [this.whiteRabbit move FORWARD, 0.25] add detail
 - else
 - drop statement here

Q5: What happens when ...



a) panda collides with a bunny?

b) whiteRabbit collides with a bunny?

Note: bunnies is an array of bunnies

Q6: What happens when

- a) panda collides with a bunny?
- b) whiteRabbit collides with a bunny?
- c) pig collides with a bunny?
- d) whiteRabbit collides with panda?



```

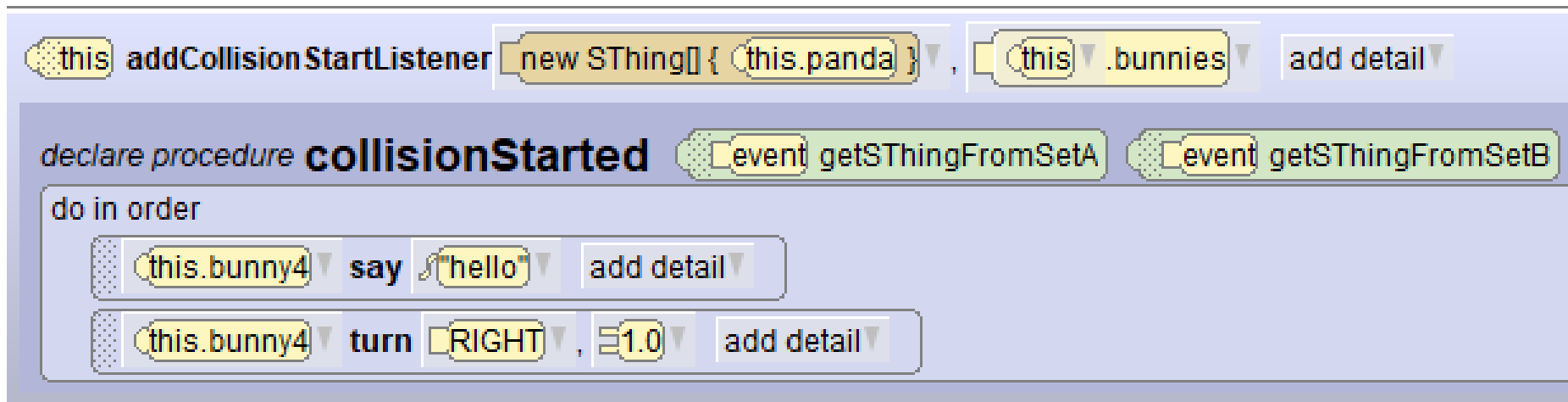
this addCollisionStartListener [this.bunnies], [new SThing[] { this.whiteRabbit, this.panda } ]
declare procedure collisionStarted [event] getSThingFromSetA [event] getSThingFromSetB
do in order
  if [event] getSThingFromSetB == [this.whiteRabbit] is true then
    [this.whiteRabbit] say ["hello"] add detail
  else
    if [event] getSThingFromSetB == [this.panda] is true then
      [this.panda] say ["hello"] add detail
    else
      [this.pig] say ["hello"] add detail

```

The image shows a Scratch code editor snippet. At the top, there is a line of code: `this addCollisionStartListener [this.bunnies], [new SThing[] { this.whiteRabbit, this.panda } ]`. Below this is a procedure declaration: `declare procedure collisionStarted [event] getSThingFromSetA [event] getSThingFromSetB`. The procedure body is enclosed in a `do in order` block. Inside, there is an `if` statement: `if [event] getSThingFromSetB == [this.whiteRabbit] is true then`. The `then` branch contains `[this.whiteRabbit] say ["hello"] add detail`. The `else` branch contains another `if` statement: `if [event] getSThingFromSetB == [this.panda] is true then`. This second `if` has two branches: `[this.panda] say ["hello"] add detail` for the `then` branch, and `[this.pig] say ["hello"] add detail` for the `else` branch.

Q7: Clicking on an array object

- There is an array of bunnies. When a bunny collides with panda, you want the bunny that collided with the panda to say hello and turn around once.
- Why doesn't this code work?



Class Today

- A game with collisions

