

# CompSci 94

## Introduction to Events

### Mouse Events

### October 31, 2024



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# Announcements

- Assignment 5 due Thurs, Nov 7
- Videos and online quiz for Tuesday
- Today we start event programming and building games
  - We are using all the programming concepts we have learned

# Q1. How do I setup an object marker for the bunny?



# Q2. How do I use an object marker?

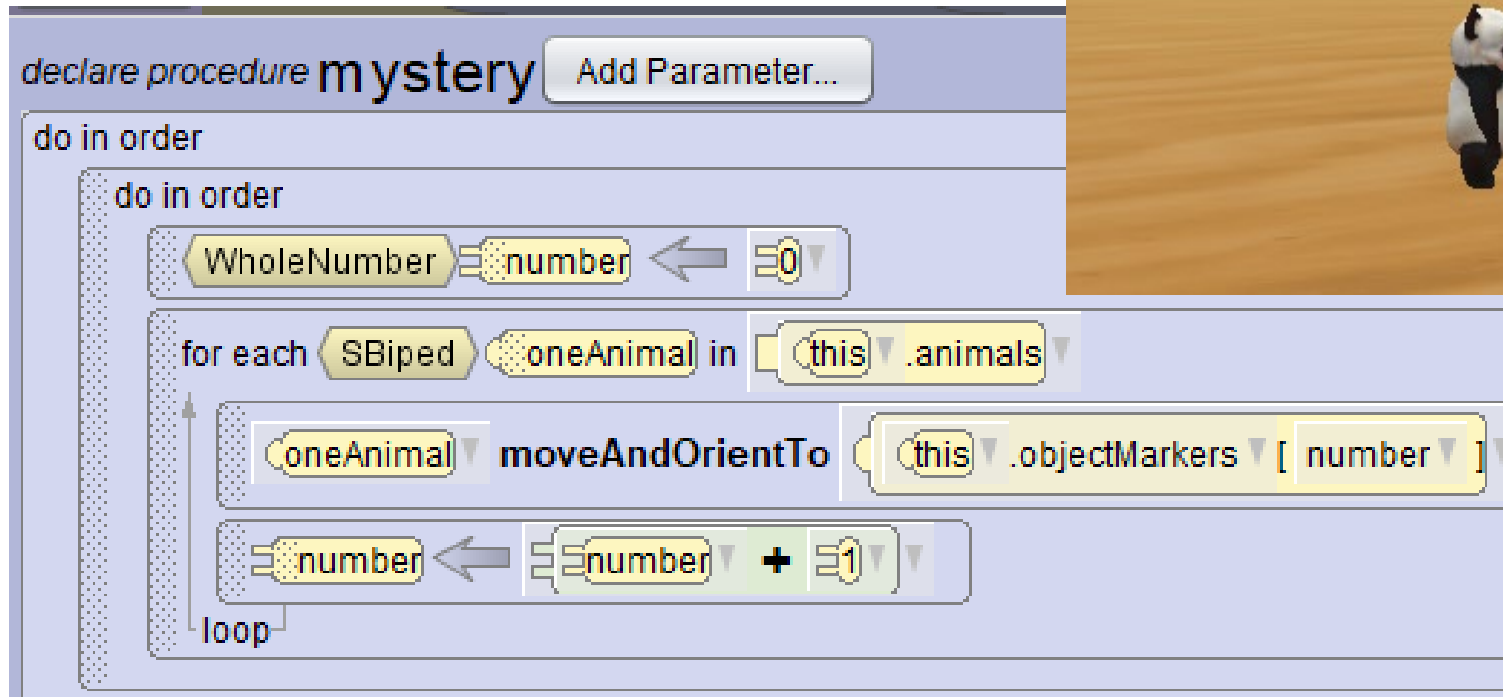


## Q3. Consider the following

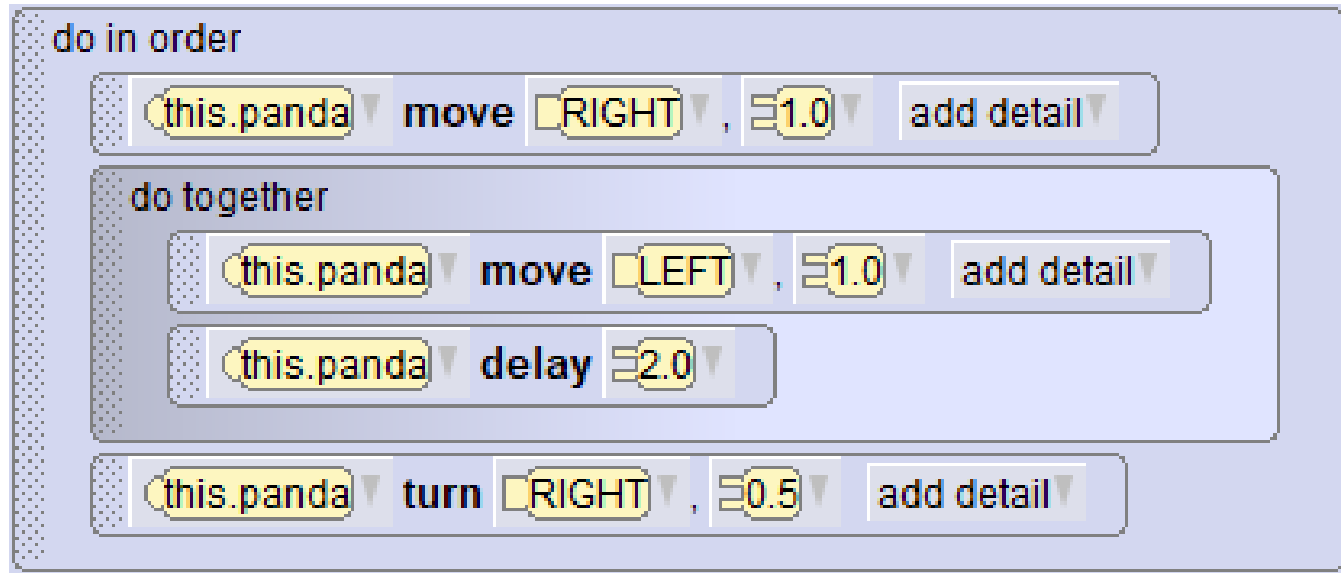
- Have 3 animals in an array named `animals`, and three object markers in an array called `objectMarkers`. They are in the order in the array as shown from left to right.



Q3: Suppose the animals have moved as shown.  
What does the mystery procedure do?



Q4. What does the following code do?



## Q5 - How do you fix the code below so you only click on cow and moose for them to turn around?

- A scene has bear cub, cow, dalmatian and moose.



**this** addMouseClickedOnObjectListener add detail ▾

declare procedure **mouseClicked** ☐ event getModelAtMouseLocation

do in order

☐ event ▾ getModelAtMouseLocation ▾ turn ☐ RIGHT ▾, ☐ 1.0 ▾ add de



# Q6 What does this event do?

The image shows a Scratch script for a mouse click event. The script is as follows:

```
this addMouseClickedOnObjectListener, setOfVisuals new Visual[] { this.dalmatian }  
  
declare procedure mouseClicked event getModelAtMouseLocation event  
do in order  
  if (this.dalmatian.getOpacity > 0.95) is true then  
    this.dalmatian say "hello" add detail  
    this.dalmatian setOpacity 0.9 add detail  
  else  
    this.dalmatian setOpacity 1.0 add detail
```

The script is written in a Scratch-like block-based language. It starts with a block that adds a mouse click listener to a new Visual array containing the dalmatian object. Then, it declares a procedure named `mouseClicked` that takes an event and returns the model at the mouse location. The procedure body contains an if-else statement that checks the opacity of the dalmatian. If the opacity is greater than 0.95, it says "hello" and sets the opacity to 0.9. Otherwise, it sets the opacity to 1.0. Each action in the if-else block is followed by an "add detail" block.

# Class Today

- Make a simple game

