

CompSci 94

Introduction to Events

Mouse Events

November 8, 2022



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Announcements

- Assignment 4 is due tonight!
- Assignment 5 out, due Thur, Nov 17
- Videos and online quiz for Thursday

- 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?

```

declare procedure mystery
do in order
  do in order
    WholeNumber ← number ← 0
  for each SBiped ← oneAnimal in this.animals
    oneAnimal moveAndOrientTo this.objectMarkers [ number ]
    number ← number + 1
  loop
  
```



Q4. What does the following code do?

```

do in order
  this.panda move RIGHT, 1.0 add detail
  do together
    this.panda move LEFT, 1.0 add detail
    this.panda delay 2.0
  this.panda turn RIGHT, 0.5 add detail
  
```

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?

```
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
```

Class Today

- Make a simple game

