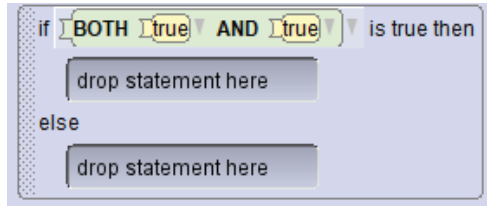


# CompSci 94

## Logic with Ifs, Nested Ifs

September 17, 2020



Prof. Susan Rodger

9/17/20

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## Announcements

- Assignment 3 due Tuesday night
- Next RQ and Videos due Tuesday 10:15am
  - They are up!
- Exam 1 Tuesday, Sept 29
  - Old exams on resources tab
  - Review next Thursday

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## WOTO-1 Properties, Math

<http://bit.ly/94f20-0917-1>

- Remember to introduce yourselves
- Discuss and each of you fill out a form
- 9 minutes

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## Review Nested IF

- What happens if the diningTable has width 1.7 and depth 1.0?



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# Logic Review

- What are possible values of A and B
  - if **A and B** is True?
  - if **A or B** is True?
  - if **A or B** is False?

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# Logic Truth Table

A	B	not A	A and B	A or B
True	True	False	True	True
True	False	False	False	True
False	True	True	False	True
False	False	True	False	False

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Consider this code – Nested Ifs  
How would you write it with ONE IF?

```

if (this.diningTable.getOpacity() > 0.99) is true then
    if (this.alien.isBehind(this.diningTable) add detail) is true then
        this.alien.serveFood
    else
        this.alien.say("No service today") add detail
else
    this.alien.say("No service today") add detail
    
```

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What does bunny say?

```

if BOTH (this.bunny.getPaint() == RED) AND (this.panda.getHeight() > this.bunny.getHeight())
    this.bunny.say("first") add detail
else
    if (this.panda.getHeight() <= this.bunny.getHeight()) is true then
        this.bunny.say("second") add detail
    else
        if (this.bunny.getPaint() != RED) is true then
            this.bunny.say("third") add detail
        else
            this.bunny.say("fourth") add detail
    
```

Bunny is red  
to start.



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## Bunny different. What does bunny say?



Bunny is  
green to start.

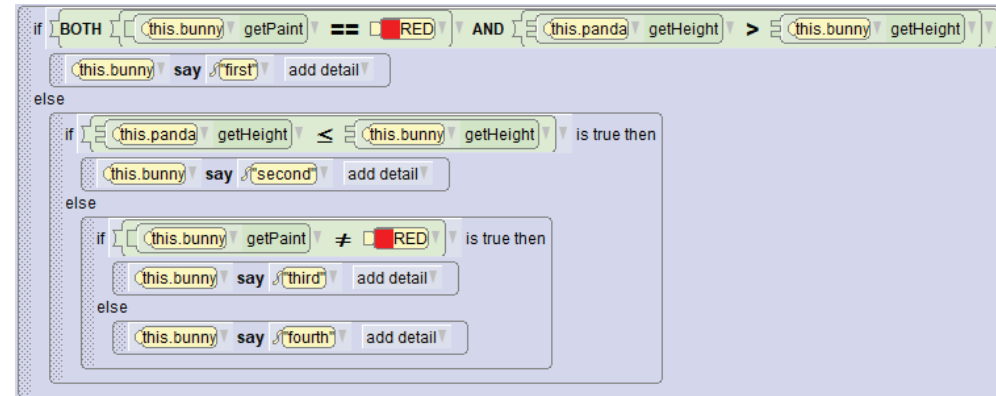


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## Give an example to make bunny say fourth



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## Class Today

- Nested Ifs, Logic – and/or/not



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