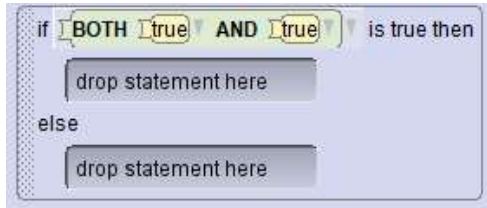


# CompSci 94

## Logic with Ifs, Nested Ifs

### October 3, 2024



Prof. Susan Rodger

## Announcements

- Assignment 3 due Tues. Oct 8
  - Also fill out reflect form!
- Next QZ and Videos due Tuesday when class starts
  - They are up!

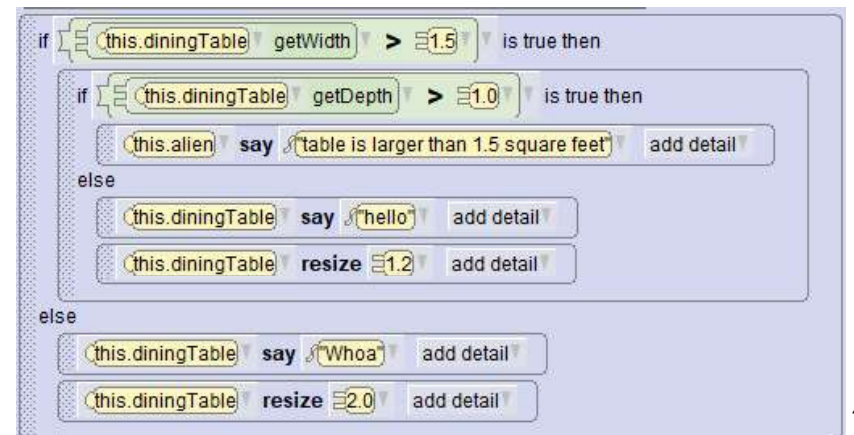
## Q1. Review Nested IF

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



## Q1. Review Nested IF

- What happens if the diningTable has width 1.7 and depth 1.0?
  - diningTable says hello and is resized larger by 1.2



## Q2. 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?

## Q2. Logic Review

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

## 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

## Logic Truth Table

A AND B is **true** only if both A and B are **true**

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

## Logic Truth Table

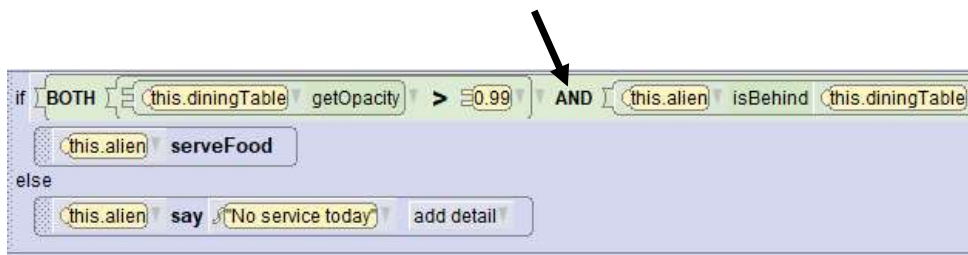
A OR B is **false** only if both A and B are **false**

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

Q3. Consider this code – Nested Ifs  
How would you write it with ONE IF?



Rewrite Code - one IF with AND



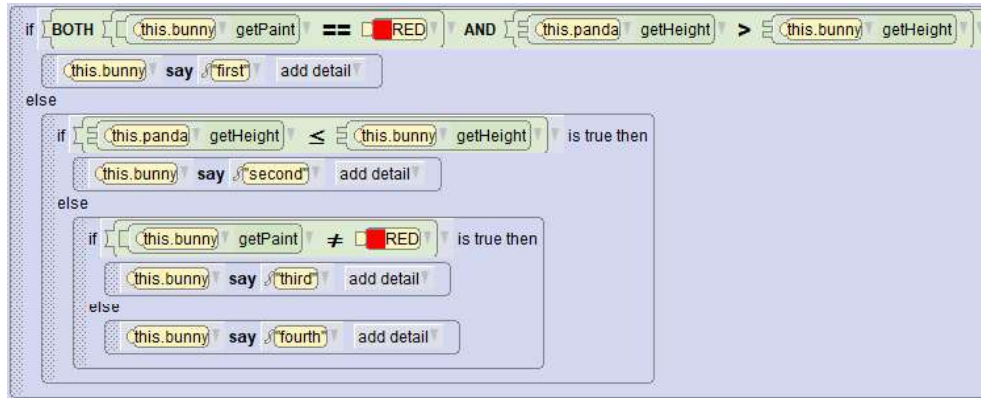
Q4. What does bunny say?



Bunny is red  
to start.



## Q4. What does bunny say?



Bunny is red to start.



Bunny says:  
second

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## Q5. Bunny different. What does bunny say?



Bunny is green to start.



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## Q5. Bunny different. What does bunny say?



Bunny is green to start.



Bunny says:  
third

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## Q6. Give an example to make bunny say fourth

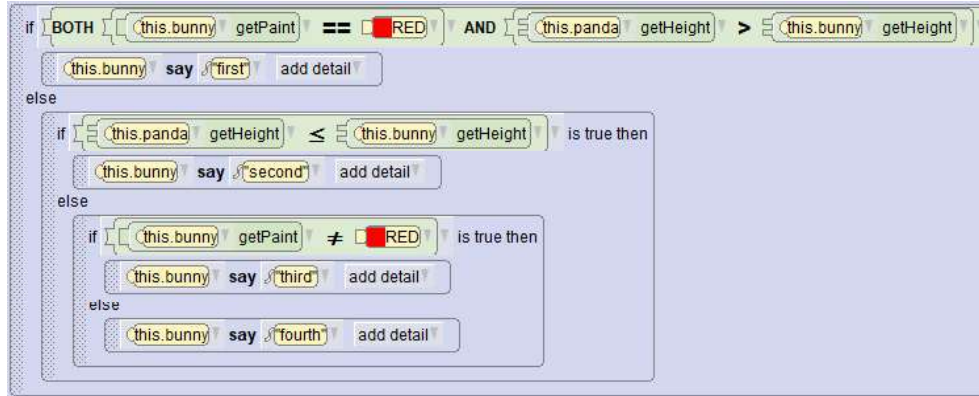


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Q6. Give an example to make bunny say fourth

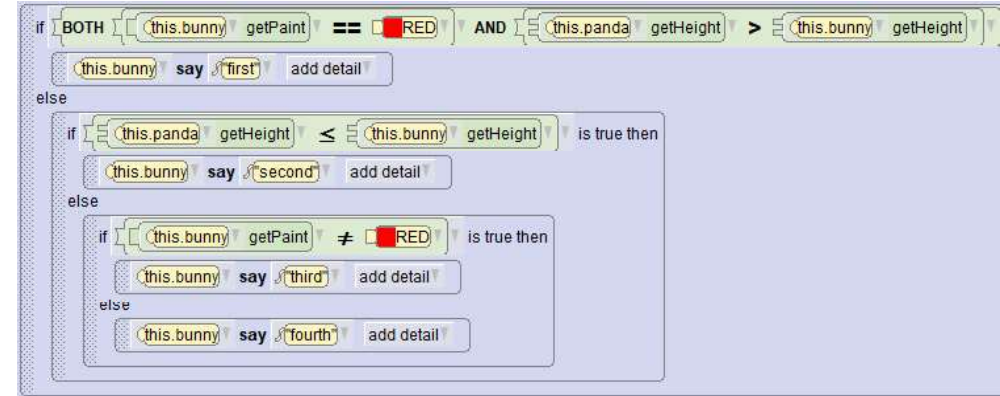


Bunny is painted red AND  
Panda is shorter than bunny

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Give an example to make bunny say fourth



Bunny is painted red AND  
Panda is shorter than bunny

**NO!!!!!!!!!!!!!!**  
No way bunny will  
ever say fourth!

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## Class Today

- Nested Ifs, Logic – and/or/not



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