CompSci 94
Introduction to Programming
Animation and Virtual Worlds
October 12, 2021

```
count up to 5
    this.pig  move  FORWARD , 1.0   add detail
    this.pig  turn  RIGHT , 0.25   add detail
loop
```
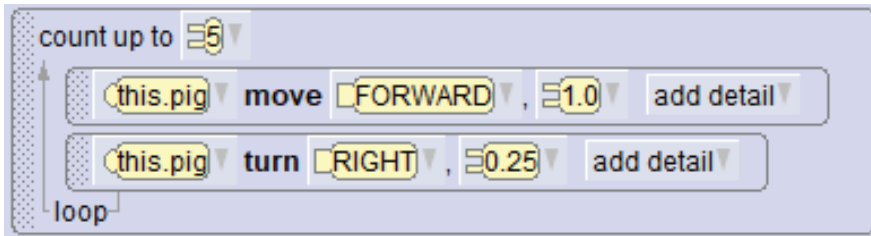
Prof. Susan Rodger

Announcements

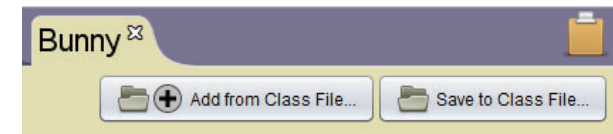- QZ and Videos due before next class

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Q1. How do you save an Alice object to read into another project?

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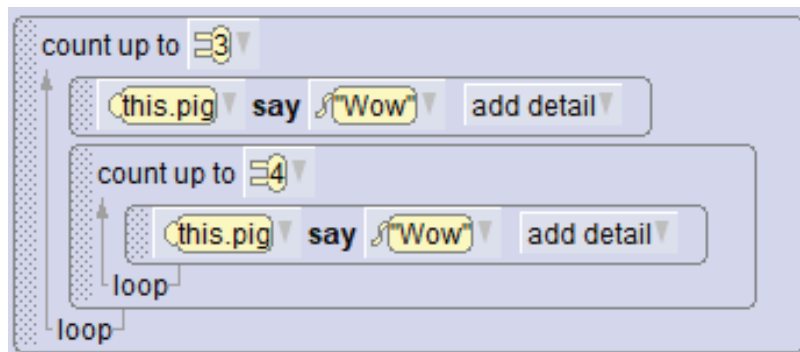- Start with six-sided shape and select the object

- Select "Save to class file"

Bunny — Add from Class File...   Save to Class File...

- Give it a different name to distinguish it

Q2. Why would you want to save an object and read it into another Alice program?
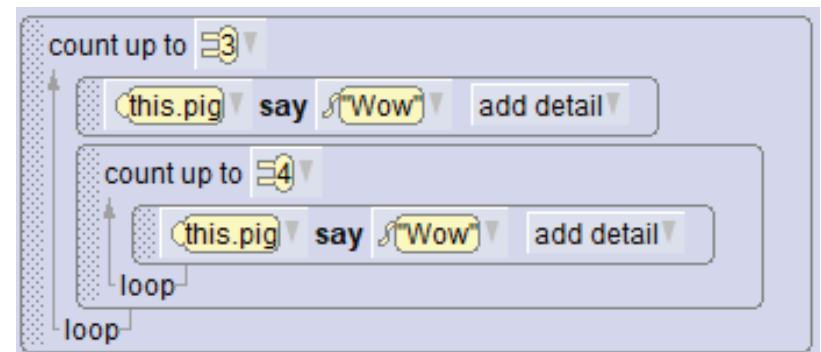
Q2. Why would you want to save an object and read it into another project?

- Re-use code
  - Bunny already knows how to walk/hop etc.
- What do you need to do to take advantage of this?
  - Write lots of object procedures before saving it out.

Q3. How many times does the pig say Wow?

```
count up to 3
    this.pig  say  "Wow"    add detail
    count up to 4
        this.pig  say  "Wow"    add detail
    loop
loop
```

Q3. How many times does the pig say Wow?

```
count up to 3
    this.pig  say  "Wow"    add detail
    count up to 4
        this.pig  say  "Wow"    add detail
    loop
loop
```

- 15 times total
  - 3 for first say, 4*3=12 for second say

Q4. Count loop

- What **type** of value can you use for the number for the count loop?

- Suppose you want your object to hop repeatedly towards another object until it stops in front of the object. How do you do that with a count loop?
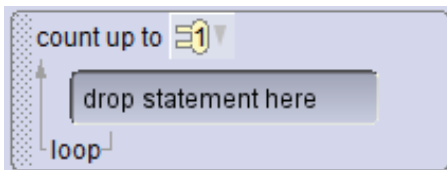
Q4. Count loop

- What **type** of value can you use for the number for the count loop?
  - Only a whole number
- Suppose you want your object to hop repeatedly until it stops in front of an object. How do you do that with a count loop?
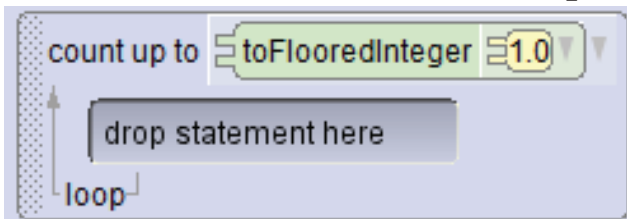 - Convert the decimal distance into an integer and use that integer

Decimal to Whole Number	▶	toFlooredInteger ??? ▶
Math	▶	toRoundedInteger ??? ▶
Custom WholeNumber...		toCeilingedInteger ??? ▶

More detail on Count with function

- First: pick any number

```
count up to 1
   drop statement here
loop
```

- Second: Decimal to Whole number option

```
count up to toFlooredInteger 1.0
   drop statement here
loop
```

More detail on Count with function (cont)

- Third: Drop built-in function over decimal number

```
count up to toFlooredInteger this.bunny getDistanceInFrontOf this.panda add detail
   this.bunny hop
loop
```
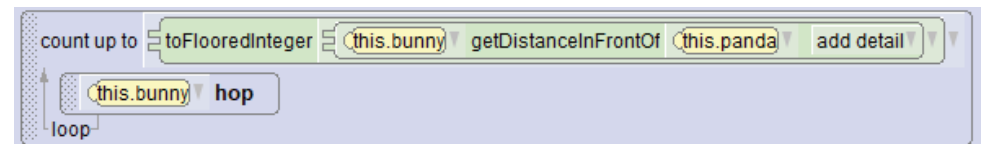
More detail on Count with function (cont2)

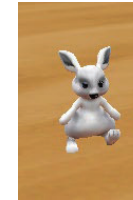- All the code (must make sure bunny and panda facing each other in order to use getDistanceInFrontOf)
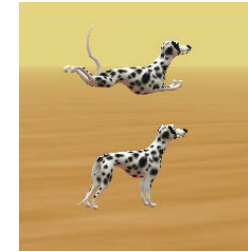
Class Today

- Create talented bunny – can walk
- Create talented dalmatian – jump with legs stretched
- Save them out and put them in another Alice project