# **Snap! Sequence and sounds**

**COR100 Snap! Programming Fall 2022** 



## **Sequences**

- The word sequence comes from the Latin word sequi, "to follow".
- Computers require exact sequences of steps or statements to work like a to do list:
  - 1. Rise and wake puppy.
  - 2. Feed puppy.
  - 3. Walk puppy.
- Deviations from the prescribed sequence lead to errors.
- The worst errors are those that remain *undiscovered*: the script will run but it won't do what we expect it to do, and *debugging* is hard.
- A script like <u>2</u> below represents a series of steps.

# **Practice - Sequences**

1. Define a new project "Sequence" and build this script in your Snap! dashboard. You can pick a non-standard sprite if you like.

```
go to x: 0 y: 0
say Hello! for 2 secs
say How-are-you-guys?! for 2 secs
think Hmm...what-should-i-show-them? for 2 secs
say See,-i-can-move! for 2 secs
move 100 steps
say And-now-turn... for 2 secs
repeat 12
turn 30 degrees
wait 0.1 secs

say I-can-change-color,-too! for 2 secs
change color effect by 25
say Now-i-am-going-to-hide... for 2 secs
hide
```

Figure 2: sample Snap! script (Source: Joshi)

2. When you try to run the script a second time, nothing happens. What could you do to re-run it properly? - *Tip: check "Looks" commands.* 

Add the Looks::show command at the top.

3. This is how the result should look like (video).

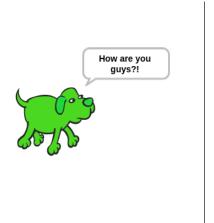


Figure 3: screenshot - sample Snap! script (Source: Joshi)

- 4. Make the change and re-run the script.
- 5. Save the <u>Sequence</u> project to the cloud and find it in **My Projects**.

#### **Sounds**

- Every sprite has a Sounds tab
- You can *import* an existing sound from the Snap! library (Sounds option in the main menu), or you can *upload* your own sound (mp3).



Figure 4: dog sprite with library barking sound

• The play sound ... until done command moves do the next statement only if the sound file has been played.



Figure 5: Play sound ... until done

• The play sound... command starts playing the sound file and moves immediately on to the next statement.



Figure 6: Play sound ...

• You can stop all sounds with the stop all sounds command.



Figure 7: Play sound ...

• [ ]

What does this script sound like?

```
when clicked
repeat 10
wait 0.2 secs
play sound Dog 1 until done
```

Figure 8: Script with sounds

• [ ]

What does this script sound like?



Figure 9: Script with sounds

### **Practice - Sounds**

- 1. Define a new project "SoundCheck".
- 2. Pick a costume and a suitable sound.
- 3. Write a script that produces 5 consecutive sounds without loop.
- 4. Duplicate the script and add a repeat loop with only one sound command
- 5. Save the project to your My Projects list

Practice solution - soundcheck

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