Snap! Mouse interaction, push-buttons on stage

COR100 Snap! Programming Fall 2022

UNIT 3: GAME DESIGN



- [] User interaction using mouse pointer
- [] Conditionals (Wait until)
- [] Numeric variables (numbers)
- [] Variables as sliders
- [] Keyboard events (polling)
- [] User input with buttons

Mouse interaction



Mouse events for sprite and stage

- 1. Clicked mouse
- 2. Pressed mouse
- 3. Dropped sprite/stage with mouse
- 4. Entered sprite/stage with mouse
- 5. Departed sprite/stage with mouse

Examples:

- create a new project,
- import the reset script
- write the first script,
- duplicate and alter accordingly.
- Switch mouse x and mouse y buttons on (Sensing)
- Remember to clean up once you're done
- Remember to write a short note on the purpose of this project, e.g. "Testing mouse interaction"

```
when I am clicked play sound Dog 2 say Woof!-Woof! for 2 secs

Clicked mouse:

when I am pressed play sound Dog 2 say Woof!-Woof! for 2 secs

think Why am libarking like a dog? for 2 secs

think Why am libarking like a dog? for 2 secs
```

```
when I am dropped play sound Dog 2 say Wooff-Wooff for 2 secs

• Dropped sprite/stage with mouse:

when I am mouse-entered play sound Dog 2 say Wooff-Wooff for 2 secs

• Entered sprite/stage with mouse:

think Why-am-libarking-like-a-dog2 for 2 secs

when I am mouse-departed play sound Dog 2 secs

when I am mouse-departed play sound Dog 2 secs

when I am mouse-departed play sound Dog 2 secs

think Why-am-libarking-like-a-dog2 for 2 secs

think Why-am-libarking-like-a-dog2 for 2 secs
```

- Departed sprite/stage with mouse:
- Test each script with a sprite and then with a stage

Make mouse follow the pointer

• You can make a sprite follow the mouse pointer using the script below

```
when clicked
forever

point towards mouse-pointer

move 2 steps
```

• Create a new sprite for this script

Cat-and-mouse

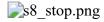
Use this same idea to make one sprite follow another:

- 1. create a new sprite hunter and another sprite prey
- 2. add costumes cat and mouse
- 3. write the code and test the script
- 4. ways to refine script:
 - o make cat sneak up on mouse
 - o make cat eat mouse
 - o make mouse eat cat

See: sample solution

Use push-buttons on the stage

• Click or push-buttons have a specific shape and a label



• Make a new project to implement a click-button:

- 1. Get a button sprite (no built-in buttons)
- 2. Use the When sprite clicked event to activate button
- 3. Send broadcast message to sprite carrying out an action
- Interesting actions include Pen art (make a drawing)

TODO Numeric variables

TODO Change variable values

TODO Switch on variable slider

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