SCRATCH Ghosts

Register/login at https://scratch.mit.edu

Use the ghost effect.

1) **Create** a new Project and give it a name.

2) In the **Sprite** section, **choose a sprite**. Look for the 'Fantasy' **Ghost** character. Keep Scratch the Cat for now.

3) Look for a **background** for a haunted house or forest.

4) Add code to **Scratch the cat** that loops **forever** and **moves** it to the mouse pointer.

5) Now make the **ghost** *ghostly*. Add a **start** block and **set ghost effect** to 50 percent (%) to make it half visible.
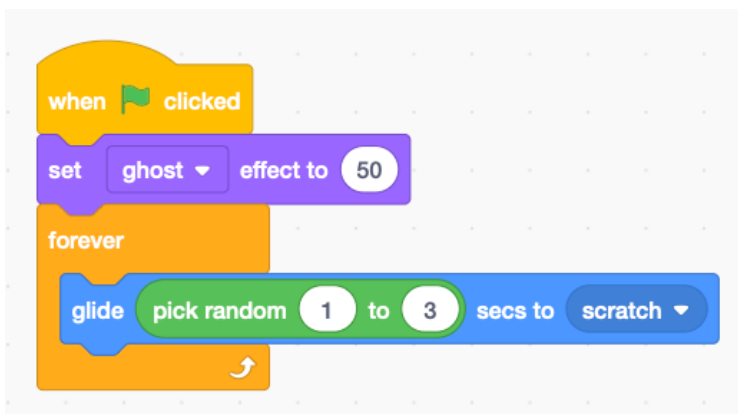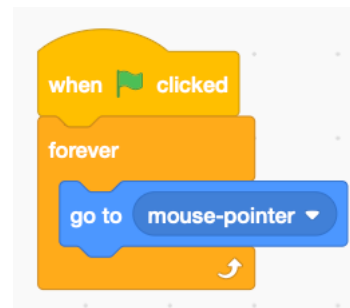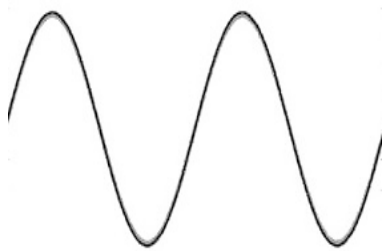
6) Add a **forever** loop and inside the loop make the Ghost **glide** towards the cat, taking a **random** number of seconds from 1 to 3.

7) Add another loop to make the Ghost sense when it's **touching** the cat, and **if** they touch, **say** "Woooooh! " as ghosts do.
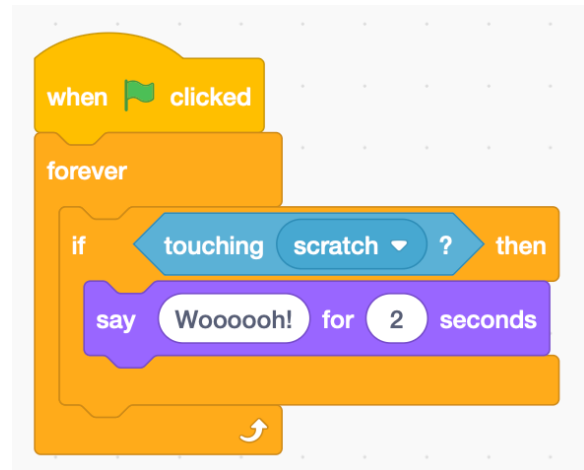
Fade in and Fade out

*The **timer** records how much time, in seconds, have passed since the last time the green flag was clicked.*

*A sinewave is a wavy line we can use with the Scratch **sin** function. Use it to vary the ghost effect over time. Multiplying **timer** by 100 changes the frequency of the wave.*

The peaks of the wave are equal to 1, and the troughs to -1. Multiply by 50 so it swings from -50 to +50, then finally add 50% for a ghost effect ranging from 0% to 100% invisibility.

8) Make the ghost fade in and out by adding this to the loop above, after the **if**: **sin**(**timer** * 100) * 50 + 50

9) Now try duplicating the ghosts (right-click the sprite).

   Save your code with a good name.