

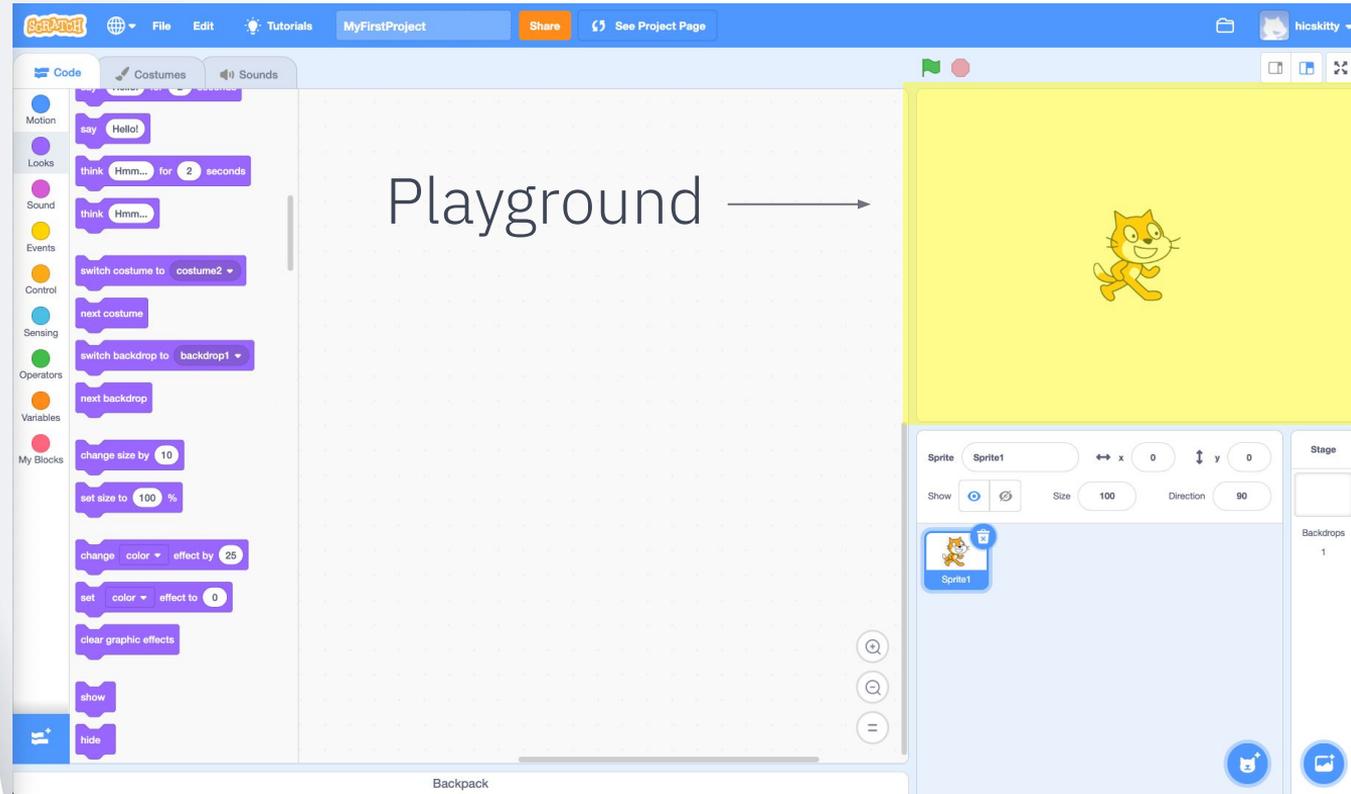
# Concepts of Programming

## Lesson 1

# A Bit About the Class and Me

# Creating an Account

# Layout of Scratch 3.0



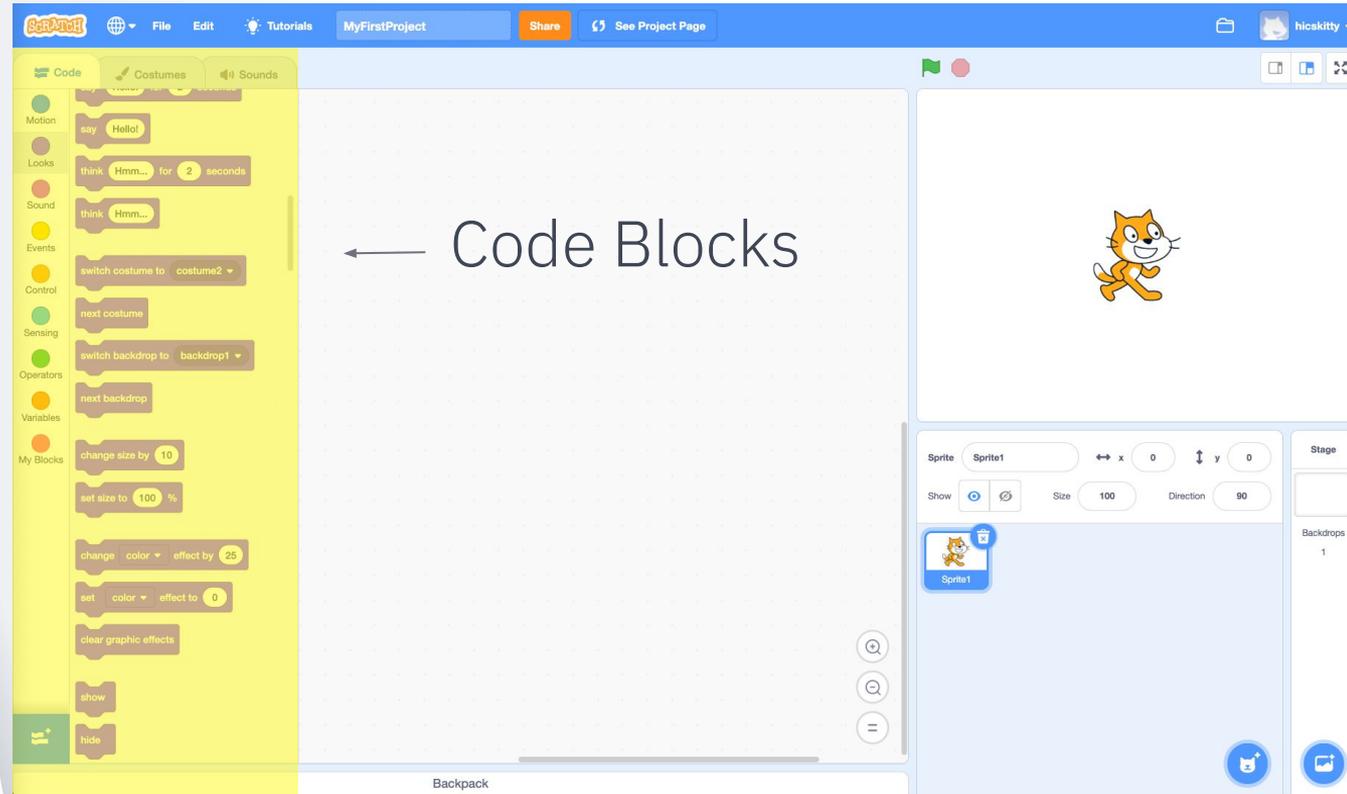
# Layout of Scratch 3.0

The screenshot displays the Scratch 3.0 web interface. At the top, there is a blue header with the Scratch logo, navigation menus (File, Edit, Tutorials), the current project name 'MyFirstProject', and buttons for 'Share' and 'See Project Page'. Below the header, the interface is divided into three main sections:

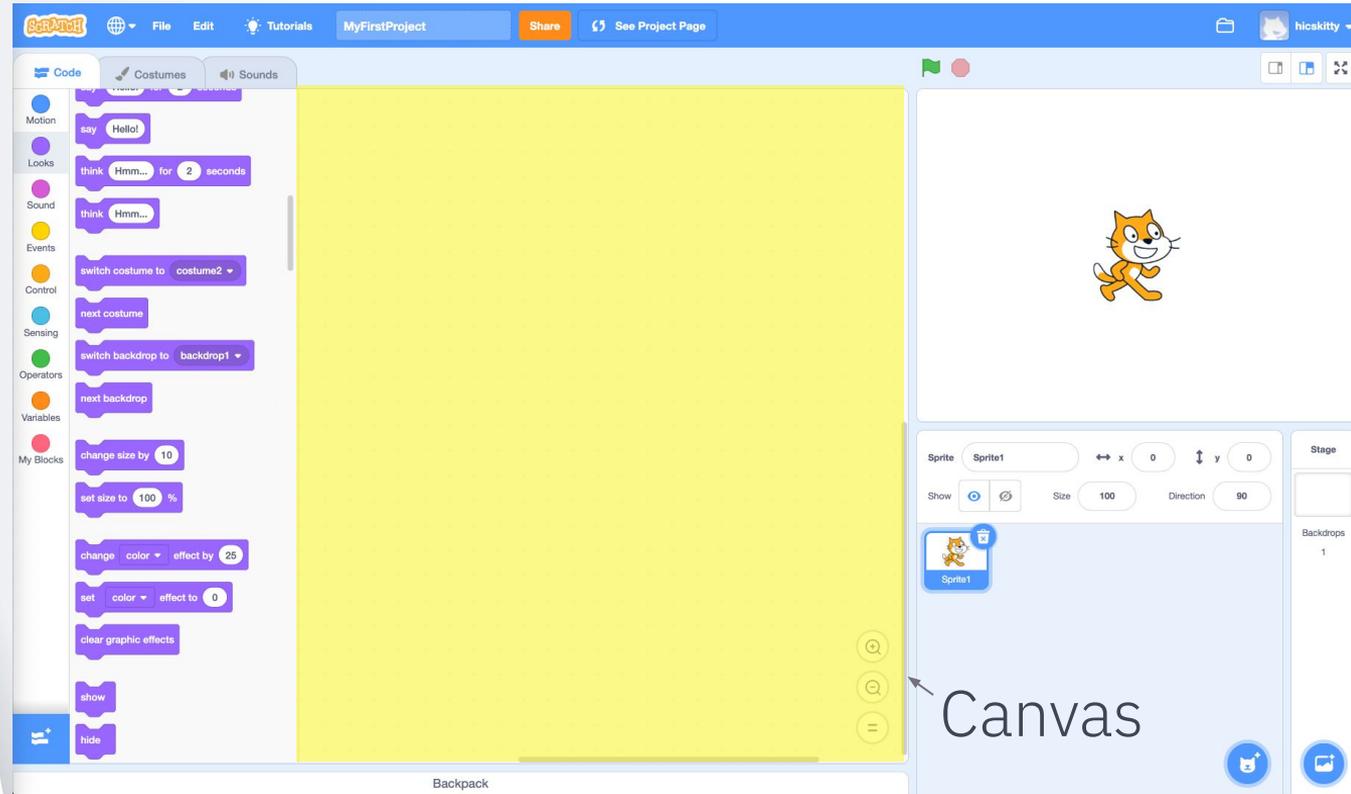
- Code Editor (Left):** A vertical sidebar on the left contains categorized block palettes: Motion, Looks, Sound, Events, Control, Sensing, Operators, Variables, and My Blocks. The main workspace is filled with a sequence of purple code blocks: 'say Hello!', 'think Hmm... for 2 seconds', 'think Hmm...', 'switch costume to costume2', 'next costume', 'switch backdrop to backdrop1', 'next backdrop', 'change size by 10', 'set size to 100%', 'change color effect by 25', 'set color effect to 0', 'clear graphic effects', 'show', and 'hide'.
- Stage (Right):** A large white canvas area where the Scratch cat sprite is currently visible.
- Sprite Settings (Bottom Right):** A yellow panel titled 'Sprite' for 'Sprite1'. It includes controls for X and Y coordinates (both set to 0), 'Show' and 'Hide' buttons, 'Size' (set to 100) and 'Direction' (set to 90) settings, a small preview of the sprite, and a 'Backdrops' section showing '1' backdrop.

Overlaid on the center of the code editor is the text 'Sprites and Settings' with an arrow pointing towards the Sprite Settings panel.

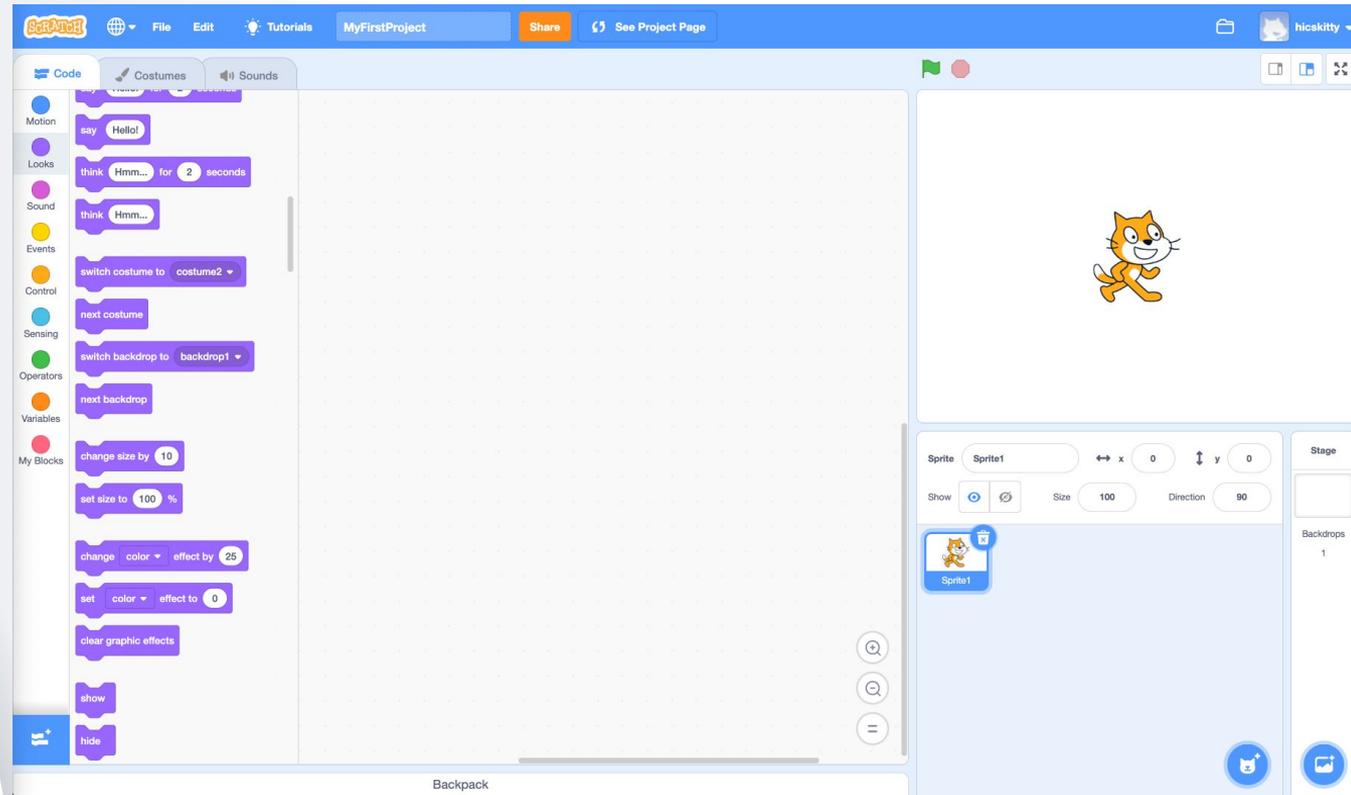
# Layout of Scratch 3.0



# Layout of Scratch 3.0



# Layout of Scratch 3.0



# Project 1: **Move the Cat**

## Blocks Needed

# Blocks: Events

- Start

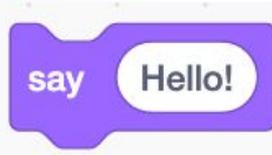


- Click Sprite

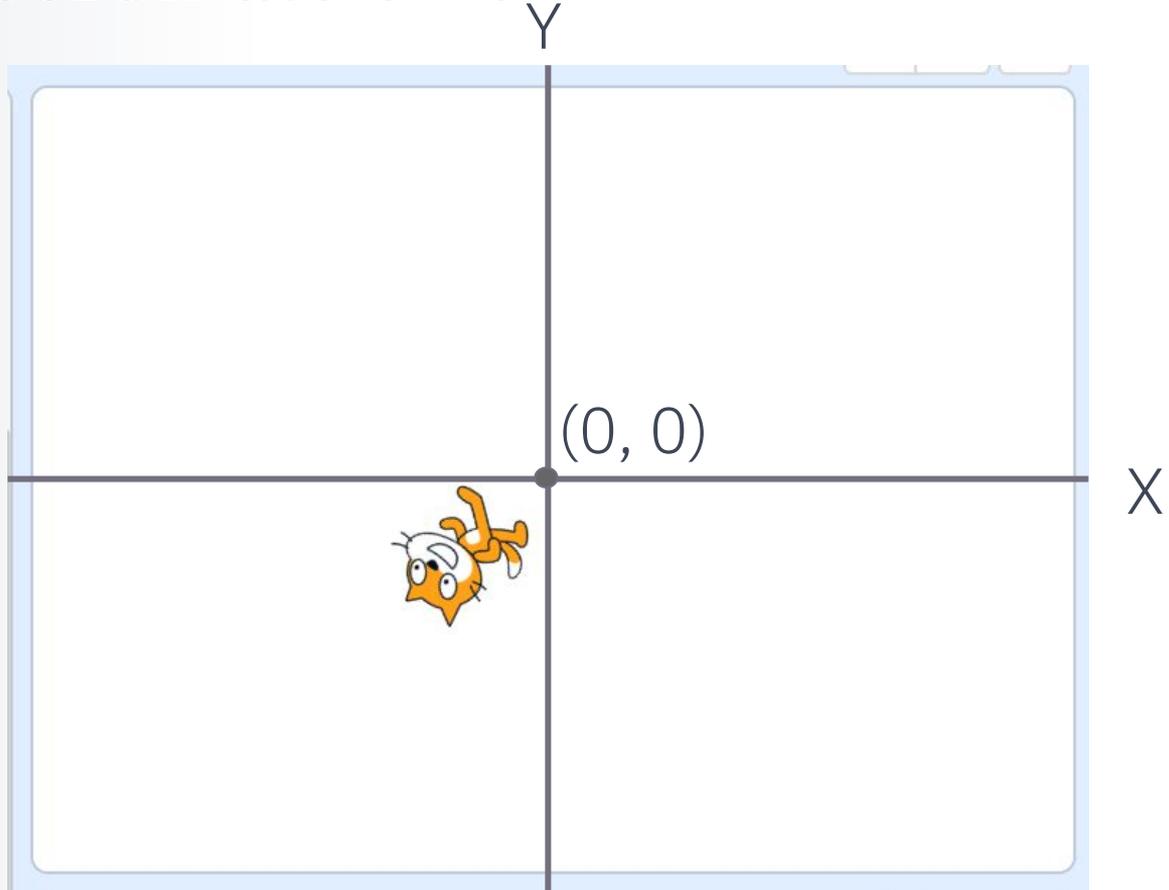


# Blocks : Looks

- Say Something

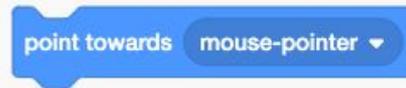


# Coordinate Grid



# Blocks : Motion

- Change direction of sprite



- Increase x, y coordinate of sprite

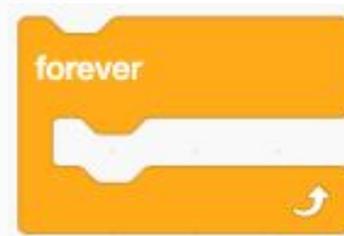


# Blocks : Control

- Run 10 Times



- Run Forever

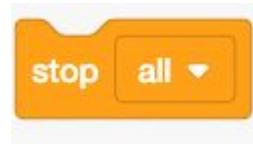


# Blocks : Control

- Wait for 1 second



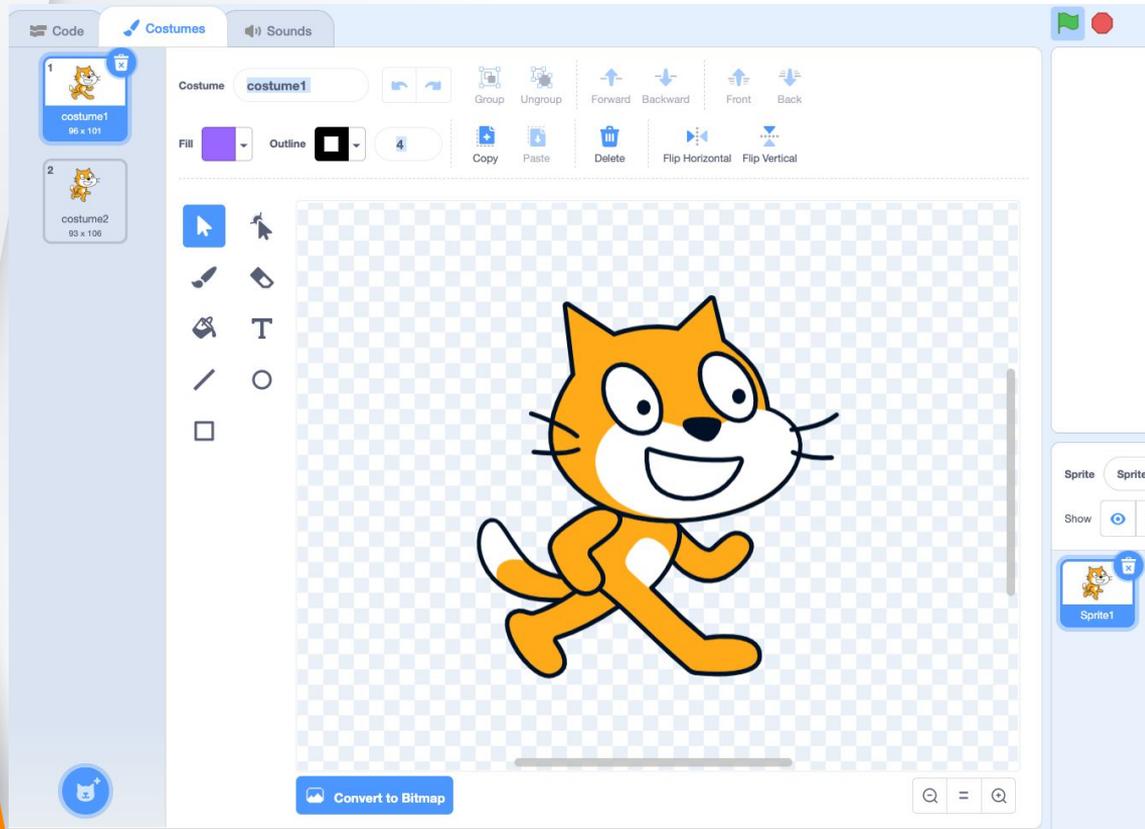
- Stop Everything



# Looks : Costume

- Change to the next costume

next costume

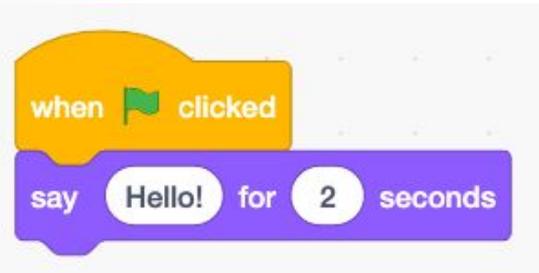


# Project 1: **Move the Cat**

Actual Project

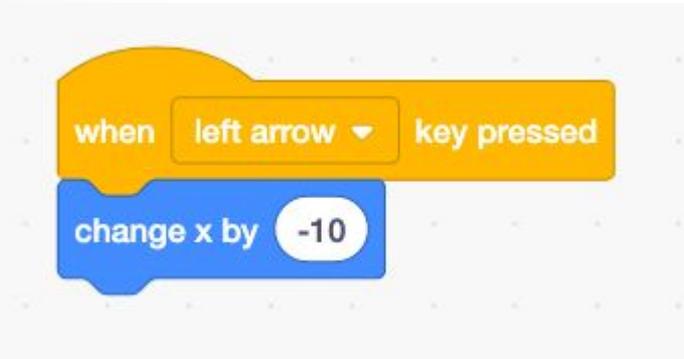
# Start

- Say hello

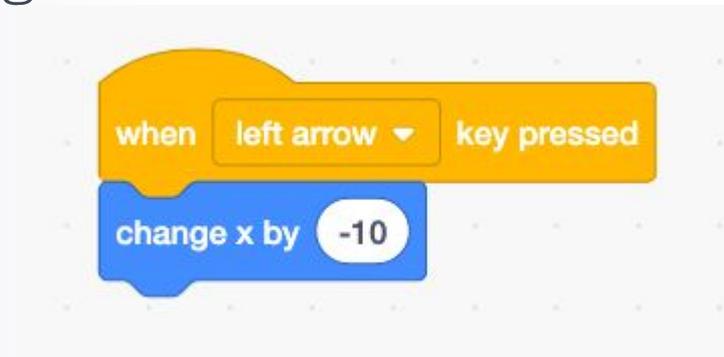


# Moving Left and Right

- Left



- Right

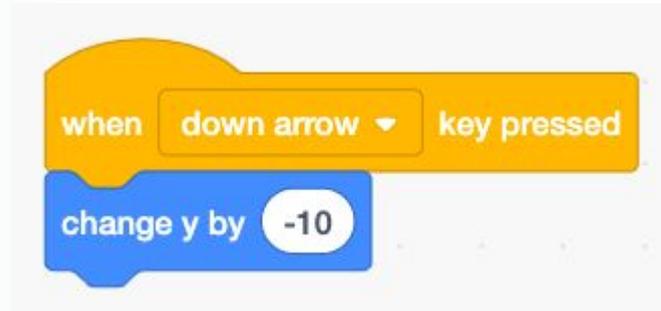


# Moving Up and Down

- Up

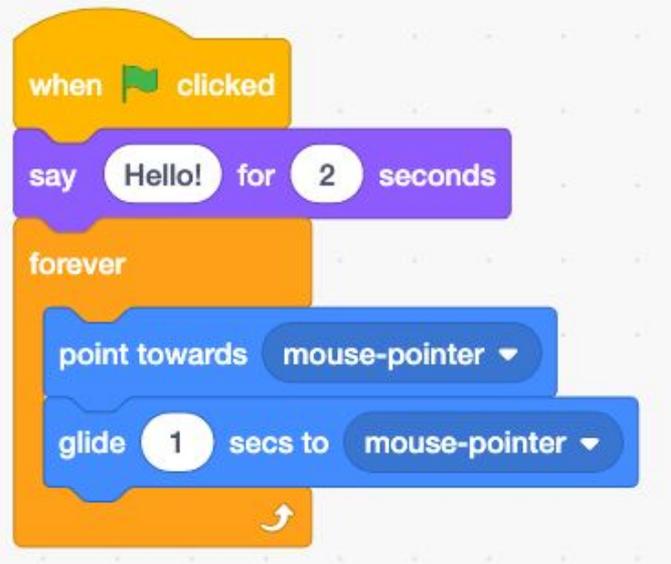


- Down



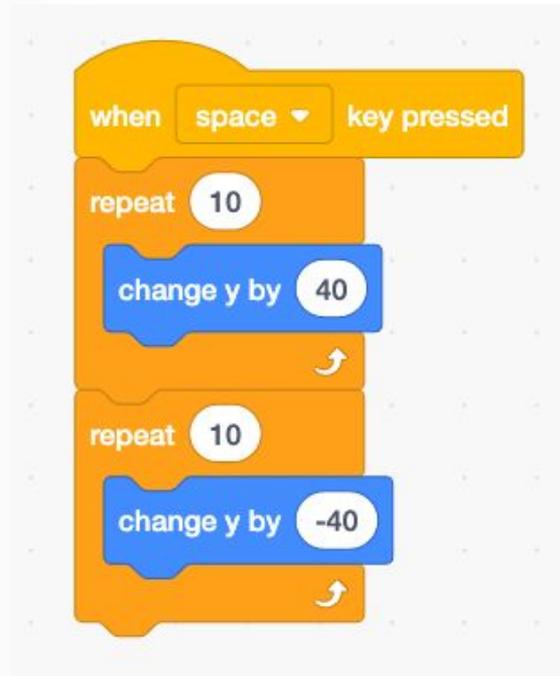
# Main Moving

- Towards mouse



# Jumping!

- Space Bar



# Walking

- Switch costumes



# End

- Stop all Block



# Move the Cat

The image shows the Scratch IDE interface. The top bar includes the Scratch logo, a menu (File, Edit, Tutorials), the project name 'MyFirstProject', and a 'Shared' button. The right side of the top bar has 'Save Now', a window icon, and a user profile 'hickitty'. Below the top bar are tabs for 'Code', 'Costumes', and 'Sounds'. The left sidebar contains a category menu with icons for Motion, Looks, Sound, Events, Control, Sensing, Operators, Variables, and My Blocks. The main workspace is a grid where three scripts are visible:

- Script 1:** Starts with 'when green flag clicked', followed by 'say Hello! for 2 seconds', a 'forever' loop containing 'point towards mouse-pointer' and 'glide 1 secs to mouse-pointer'.
- Script 2:** Starts with 'when this sprite clicked', followed by 'say Bye'.
- Script 3:** Starts with 'when space key pressed', followed by a 'repeat 10' loop containing 'change y by 40', and another 'repeat 10' loop containing 'change y by -40'.

The right side of the workspace shows a cat sprite on a stage with a 'Bye' speech bubble. Below the stage is a 'Sprite' panel with 'Sprite1' selected, showing its x and y coordinates (-11, 4), size (60), and direction (122). A 'Backdrops' panel shows 'Backdrops 1'. At the bottom right, there are icons for a cat and a stage.