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Introduction to Programming and Scratch

What is Programming?

Programming is how we give instructions to a computer to make it do what we want. It's like giving directions to a friend on how to reach your house. By writing code, we tell computers to perform tasks, solve problems, and even create games or animations!

What is Scratch?

Scratch is a fun and easy way to learn programming. It's a colorful platform where you can make stories, games, and animations by snapping blocks together.

How to Download Scratch

Follow these steps to get Scratch on your computer:

1. Open a browser: Like Chrome, Safari, Firefox, or Edge.
2. Go to the Scratch website: https://scratch.mit.edu.
3. Click on "Download": You'll find this at the top of the page.
4. Choose your operating system: Windows, macOS, or others.
5. Install the program: Open the downloaded file and follow the steps.

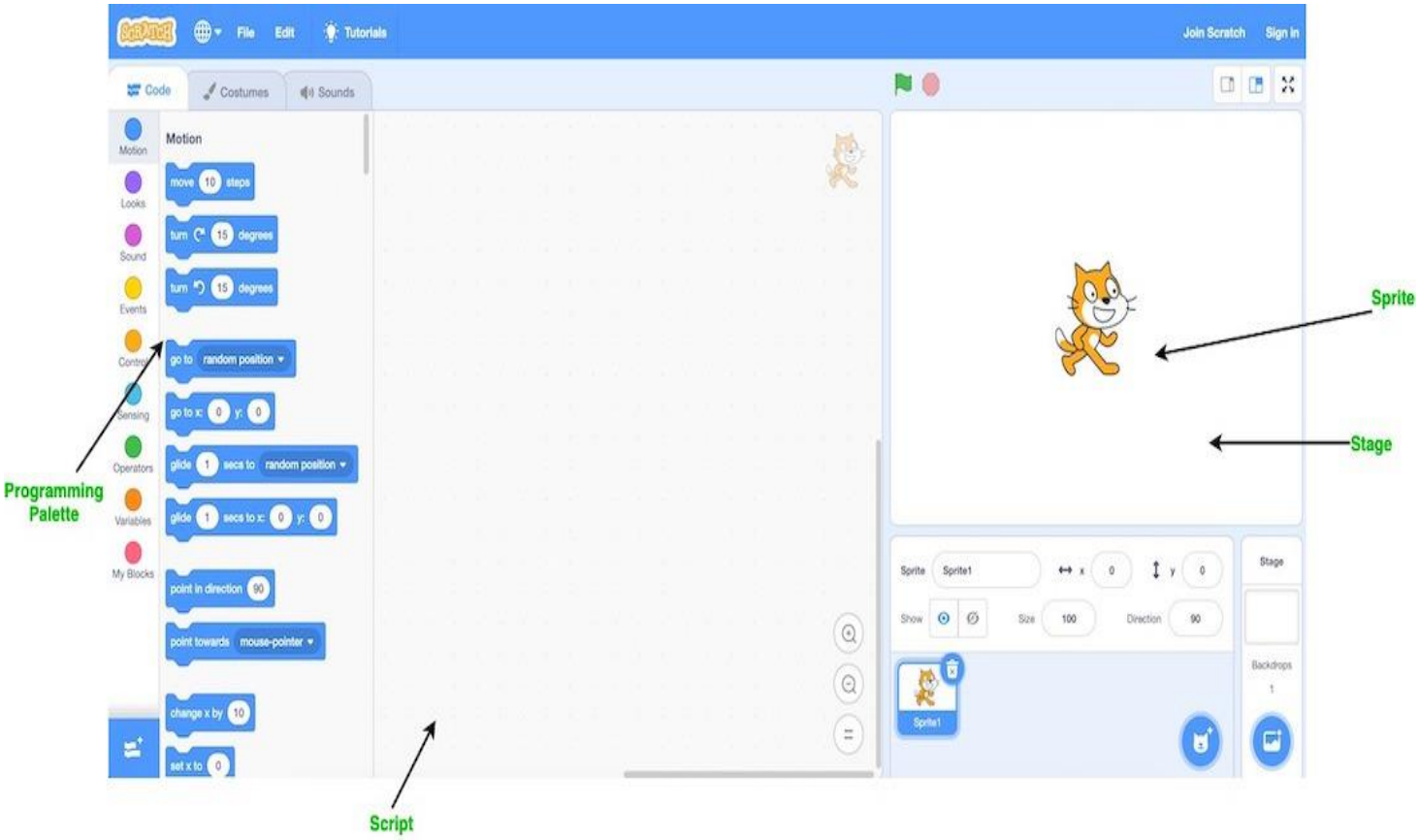
If you don't want to download, you can use Scratch directly in the browser!

Basic Elements of Scratch

Here's what you'll see when you open Scratch:

1. Sprite: These are the characters or objects in your project. You can make them move, talk, or interact.

2. Stage: This is where the action happens. It's like the screen where your story or game plays out.
3. Blocks Palette: These are the instructions you can use. Blocks are color-coded based on what they do (e.g., motion, looks, sound).
4. Script Area: Drag blocks here to create a program. Snap them together to make your sprite do amazing things!
5. Green Flag: Press this to start your program.
6. Red Stop Sign: Use this to stop your program.



Types of Block

Block Categories	
Motion	Control the place, movement, direction and rotation of a sprite.
Looks	Control how a sprite or backdrop looks and display text.
Sound	Select sounds and control their volume and pitch.
Events	Control how a script is triggered.
Control	Control the action of a sprite, including loops and waits.
Sensing	Detect the position of the mouse cursor and other sprites.
Operators	Perform mathematical calculations.
Variables	Store data in Scratch's memory.

The Basics


Click here to select a **backdrop**.


Click here to select a **sprite**.

Click on the bin to delete a **sprite** from the **Stage**.


Click here to start and stop a **script** if using the **green flag block**.


Click on the **Add Extension** icon to add the **Pen Extension** to draw on the **Stage**.

Let's Make Something Simple

Let's create a small program to make a sprite move!

1. Drag the "When Green Flag Clicked" block from the Events section.
2. Drag the "Move 10 Steps" block from Motion and snap it under the first block.
3. Click the green flag and watch your sprite move!

Why is Scratch Amazing?

- It's easy: No typing, just drag and drop!
- It's creative: Make games, animations, or stories.
- It's fun: Learn while playing!