

Website Structure and Development Tools

EXSM 3928: Module 2

Module 2 Note

What is the purpose of this module?

- Theory
- Practical

Learning Outcomes

What is the purpose of this module?

- Understand the **structure** and **components** of a **web page**
- Describe the purpose of **common web programming languages**
- Compare and contrast **frontend** and **backend** development
- Compare and contrast a **website**, **web app**, and a **native application**

Module Resources

The Beginner's Guide to Website Development

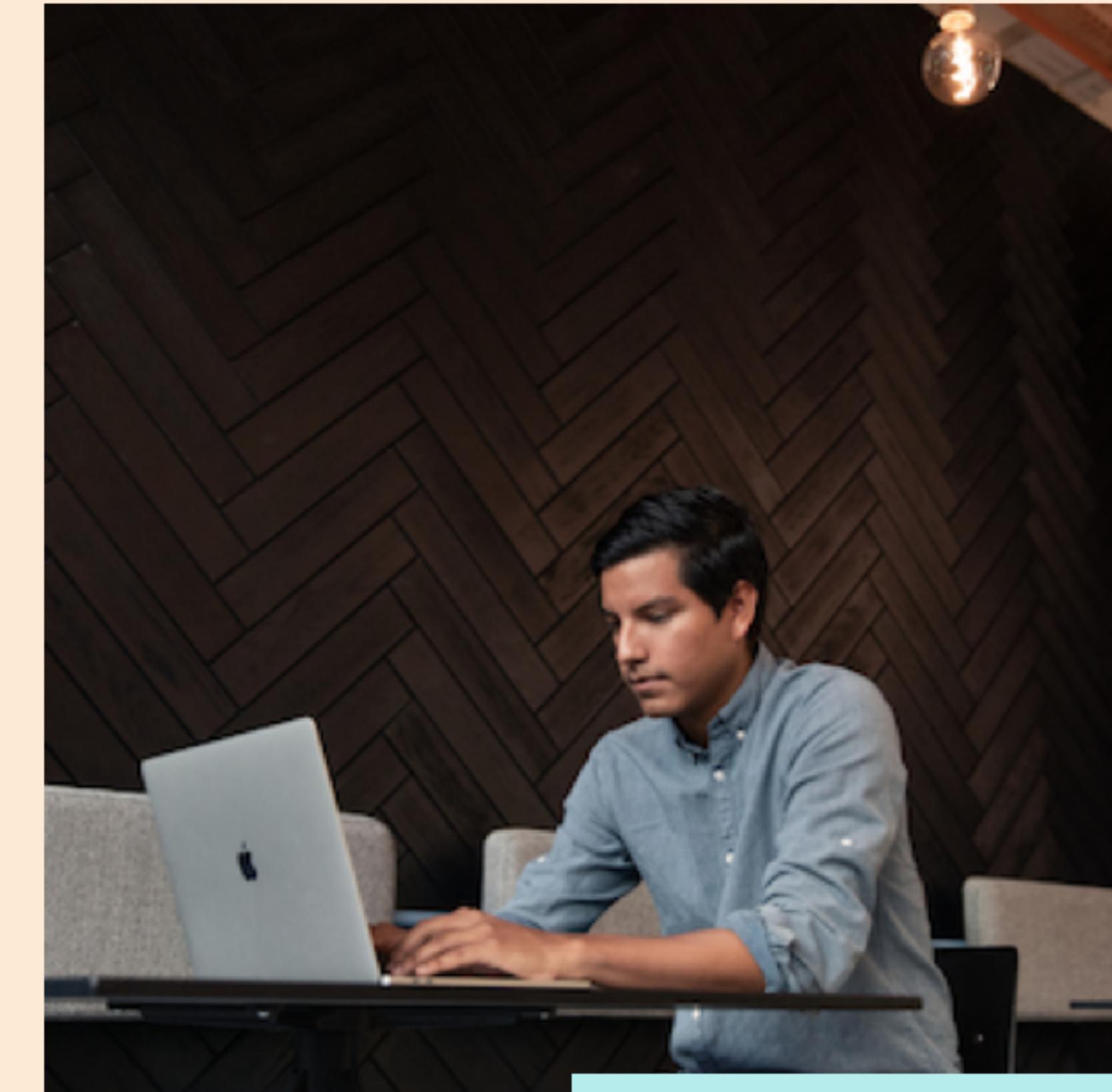
Read about the basics of web development, the process of creating a website, and additional resources for those who want to learn more.

Written by: [Allie Decker](#)



THE BEGINNER'S GUIDE TO HTML AND CSS FOR MARKETERS

Learn the basic definitions, differences, and codes to know for your website.

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U FREE GUIDE: AN INTRO TO HTML & CSS FOR MARKETERS ^

Summary

- 4.7 billion internet users
- Websites, servers, IP, DNS
- Front-end vs backend
- content management system (CMS)
- Web development process (plan, wireframe, sitemap, code)



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Mar 4, 2021

Website Builder vs Custom Site - The Pros and Cons



Written by:
Tyrel Witcher
Senior Web Designer/Developer

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SCROLL →



Summary

- Using a builder (pro)
 - Faster start up
 - Cheaper (maybe)
 - **Simpler**
- Using a builder (con)
 - **Limited**
 - Site performance
 - Vender lock-in
 - Copy paste template

Summary

- Build your own (pro)
 - Unique design
 - Optimization
 - **Unlimited potential**
 - Cheaper (maybe)
- Build your own (con)
 - **Time**
 - Quality
 - Management
 - Maintenance

Important Questions

Important Questions

What is the purpose of this module?

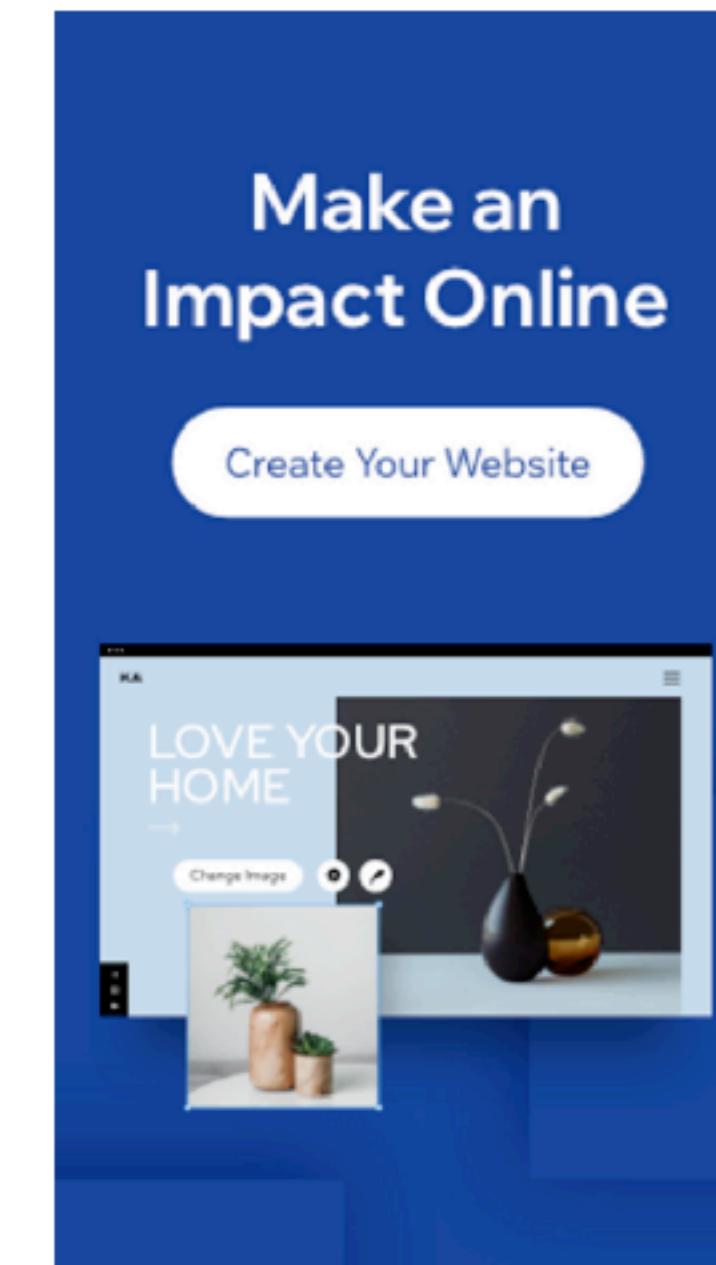
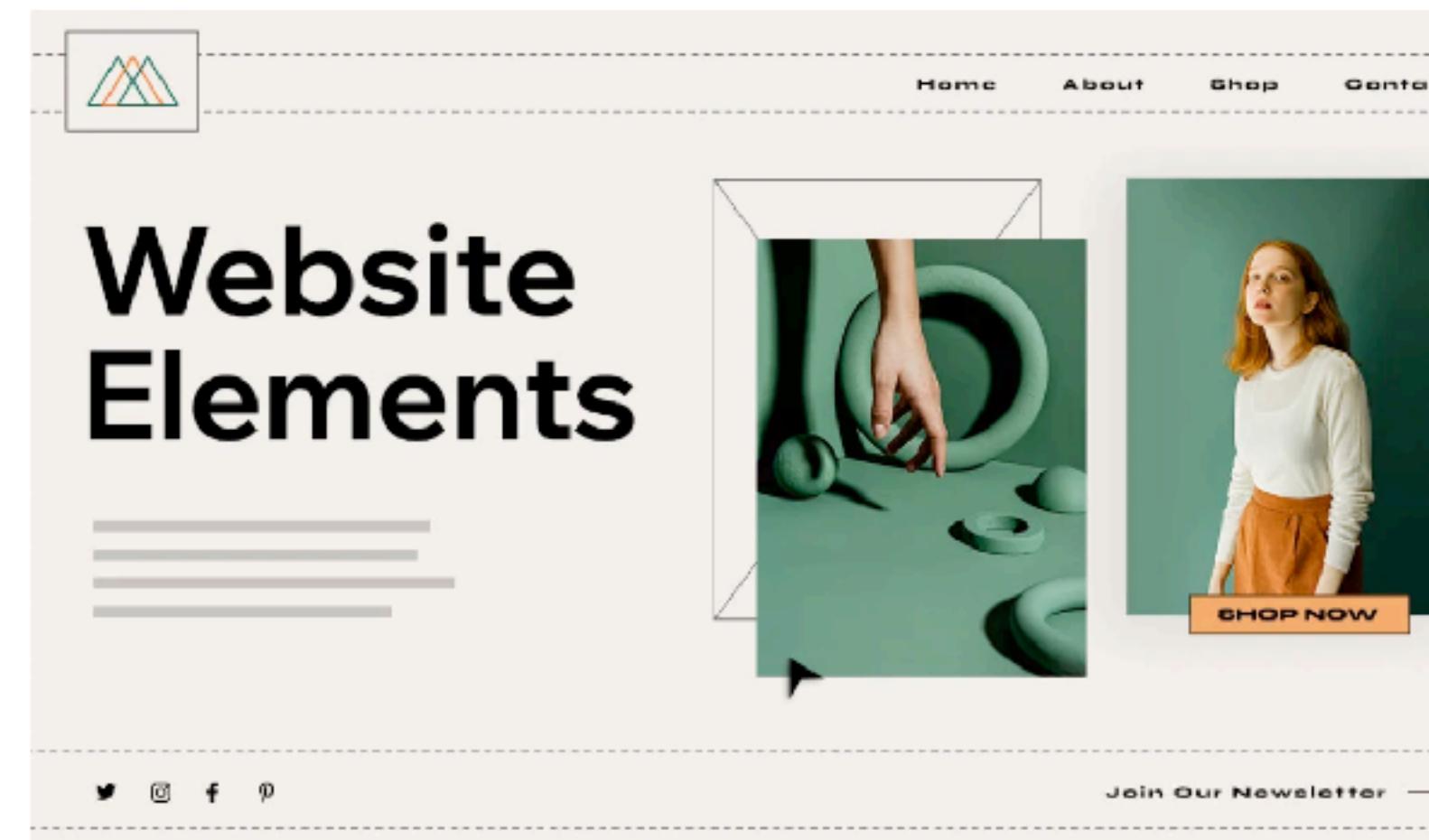
- What are the components of a webpage?
- What is a client, user-agent, and server?
- What are common programming languages?
- What is the difference between front-end and back-end?
- What is the difference between a website, web app, and native app?
- What are website builders and what is Wordpress?
- What is Markdown?
- How do I learn to code?

**What are the components of a
webpage?**

Mar 23, 2021 · 7 min read

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Essential Parts of a Website



As Aristotle famously taught us, the whole is greater than the

What is a client, user-agent, and server?



WIKIPEDIA
The Free Encyclopedia

Main page
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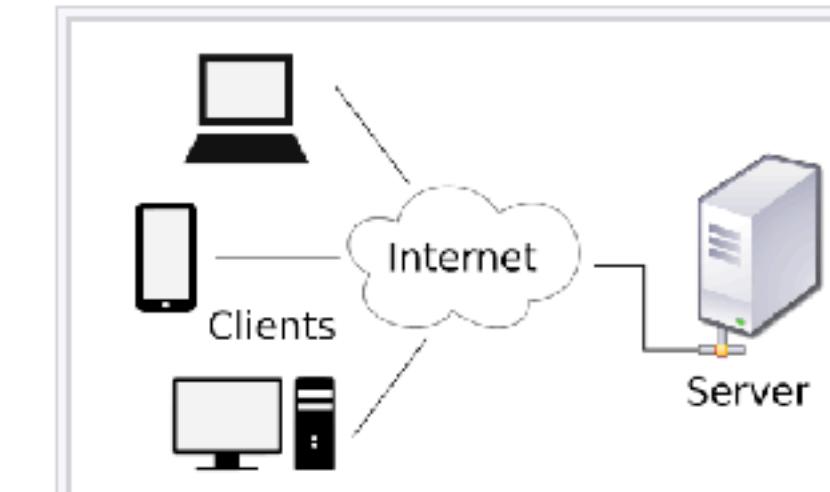
Client–server model

From Wikipedia, the free encyclopedia

Client-server model is a [distributed application](#) structure that partitions tasks or workloads between the providers of a resource or service, called **servers**, and service requesters, called **clients**.^[1] Often clients and servers communicate over a [computer network](#) on separate hardware, but both client and server may reside in the same system. A server [host](#) runs one or more server programs, which share their resources with clients. A client usually does not share any of its resources, but it requests content or service from a server. Clients, therefore, initiate communication sessions with servers, which await incoming requests. Examples of computer applications that use the client-server model are [email](#), network printing, and the [World Wide Web](#).

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- 1 Client and server role
- 2 Client and server communication
- 3 Example
- 4 Early history
 - 4.1 Client-host and server-host
- 5 Centralized computing
- 6 Comparison with peer-to-peer architecture
- 7 See also
- 8 Notes



A computer network diagram of clients communicating with a server via the [Internet](#)

Client and server role [edit]

The "client-server" characteristic describes the relationship of cooperating programs in an application. The server component provides a function or service to one or many clients, which initiate requests for such services. Servers are classified by the services they provide. For example, a [web server](#) serves [web pages](#) and a [file server](#) serves [computer files](#). A [shared resource](#) may be any of the server computer's software and electronic components, from [programs](#) and [data](#) to [processors](#) and [storage devices](#). The sharing of resources of a server constitutes a [service](#).

Whether a computer is a client, a server, or both, is determined by the nature of the application that requires the service functions. For example, a single computer can run a web server and file server software at the same time to serve different data to clients making different kinds of requests. The client software can also communicate with server software.

**What are common programming
languages?**

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Step 1 of 3

* indicates required field.

First name *

Last name *

Email Address *

Phone Number *

**What is the difference between
front-end and back-end?**

SOFTWARE ENGINEERING

What Is the Difference Between Front-End and Back-End Development?

Front-end developers work on what the user can see while back-end developers build the infrastructure that supports it.

What is the difference between a website, web app, and native app?

[**< Back to articles**](#)

Mobile App vs. Web App vs. Website: Which Is Better and Why?

**Keith Shields**

March 16, 2021

One of the first decisions you'll make when setting out to build a digital product is whether you'll [create a mobile app](#), a web app, or a website. We interact with various types of apps every day, but we don't often consider the formats that our favorite tools use, and it can be a challenging decision when it comes to your own product. Here's what you need to know about the differences between mobile apps, web apps, and websites so you can make the right choice for your business.

What Is an App?

An app is a software program that runs on a platform. When we talk about apps, we may be referring to mobile apps that run on mobile devices like smartphones, tablets or computer apps, which can run web apps either locally on your hard drive or through a web browser via the internet.

Types of Apps

There are two main kinds of apps: mobile apps and web apps.

1. **Mobile apps** are often built for a specific platform, like [Android](#) or [iOS](#). You also have the option to build a [hybrid mobile app](#) that will work in both environments, with some limitations.
2. **Web apps** are essentially responsive websites that adjust to the size of the device. They are usable

**What are website builders and
what is Wordpress?**

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October 21, 2022 by Ian Hernandez

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What is Markdown?



Getting Started

An overview of Markdown, how it works, and what you can do with it.

What is Markdown?

Markdown is a lightweight markup language that you can use to add formatting elements to plaintext text documents. Created by [John Gruber](#) in 2004, Markdown is now one of the world's most popular markup languages.

Using Markdown is different than using a [WYSIWYG](#) editor. In an application like Microsoft Word, you click buttons to format words and phrases, and the changes are visible immediately. Markdown isn't like that. When you create a Markdown-formatted file, you add Markdown syntax to the text to indicate which words and phrases should look different.

For example, to denote a heading, you add a number sign before it (e.g., `# Heading One`). Or to make a phrase bold, you add two asterisks before and after it (e.g., `**this text is bold**`). It may take a while to get used to seeing Markdown syntax in your text, especially if you're accustomed to WYSIWYG applications. The screenshot below shows a Markdown file displayed in the [Visual Studio Code text editor](#).

[What is Markdown?](#)

[Why Use Markdown?](#)

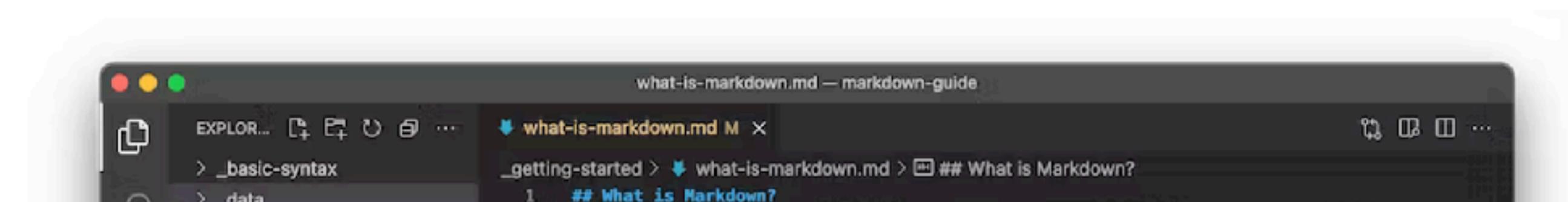
[Kicking the Tires](#)

[How Does it Work?](#)

[What's Markdown Good For?](#)

[Flavors of Markdown](#)

[Additional Resources](#)



How do I learn to code?



Code for Designers

This course provides an introduction to web design principles and client-side scripting. This course will introduce students to HTML5 and CSS and the fundamentals of web development and design. The course provides a foundation on web page construction, wireframing, prototyping and development. By the end, students will understand the anatomy of a web page and know how to work with developers/communicate with developers. Students will have an opportunity to design and develop a personal website.

EX 1111 is offered this fall:

FA1 (Online)

in progress

Course at a glance

In this hands-on class, you'll learn through a mix of lab-like exercises, lectures, and assignments.

Engage in online discussions and participate in content, design, and

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Achieve mastery through challenge

Improve your development skills by training with your peers on code kata that continuously challenge and push your coding practice.

[Get Started](#)

You must complete our beginner-friendly initiation challenge in order to sign up.

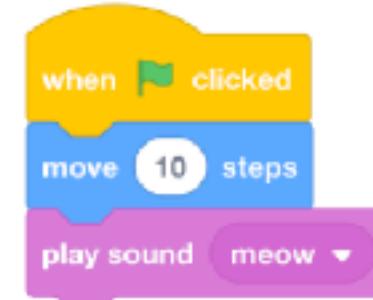
Confirm your email to enable sharing. [Having trouble?](#)



Welcome to Scratch!



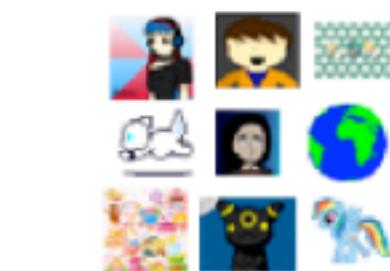
Learn how to make
a project in Scratch



Try out starter
projects



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Scratch News

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Wiki Wednesday!

Check out the new Wiki Wednesday forum post, a news series highlighting the Scratch Wiki!



Scratchtober is here!

Scratchtober 2022 has officially begun and you're invited! Check out the studio for more information...



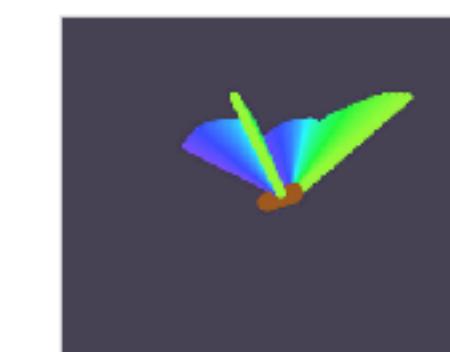
New Scratch Design Studio!

In this SDS, we're inviting you to create a project that incorporates dots into your creation. Learn more here!

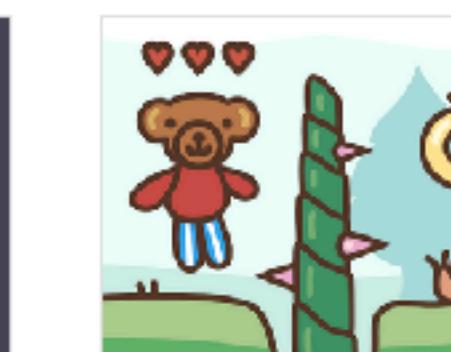
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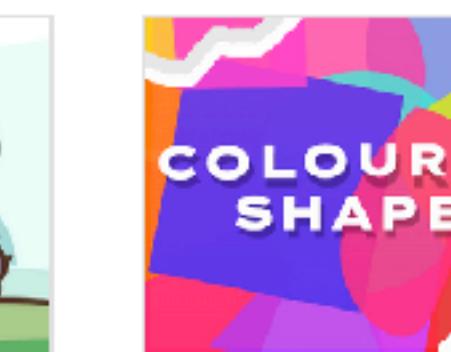
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StarFoxCub



Butterfly (Pen)
haruni459



Bjorne's Quest - A...
Bjorne



COLOURFUL SHAPES
gogo2233



Shifting Sands | A...
TheTurtleOfWar



Featured Studios

Module Demonstration

Module 2 Demonstration

- Website builders
 - Wordpress, Squarespace, Webflow, other
- Inspecting code
 - Network tab
 - Resources and filetypes
- Writing markdown

Module Discussion

What is your greatest challenge with learning code? What advice would you give to someone starting to learn design?

Module 2 Prompt

Module 2 Assignment

- See eClass for details

