Hosting

Hosting provides server space and resources for storing and delivering websites over the internet. Types include shared hosting, VPS, dedicated hosting, and cloud hosting witch scalable resources. Services include infrastructure, domain registration, Security, and technical support for reliable website availability.

Browsing the web

By now, you should have several modern web browsers installed on your devices. This part of the module explores how browsers work, helping you understand the differences between common browsers features and how to use them effectively. It also covers how browsers process web content and how to search for information online more effectively.

> ⓘ **Note:** If you don't have any browsers installed beyond the default ones that came with your devices, install some others. See Modern web browsers for more information.

The web, like any specialized field, comes with its own set of technical terms and jargon. While you don't need to learn everything at once, there are a few basic terms that are important to understand early on, since they come up frequently. These foundational concepts will help you navigate and make sense of how the web works, and you can always refer to a glossary later if you're curious about more advanced terminology.

Prerequisites:	Basic familiarity with your computer operating system.
Learning outcomes:	- The difference between a web browser, a website, and a search engine. - How a web browser works at a basic level. - Searching for information.

The difference between web page, website, web server, and search engine

Web Page

A web page is a single document written in HTML that can be displayed in a browser. It may include styles, scripts, and media like images or videos. Each web page has unique address (URL) that you can type into your browser to access it.

Website

A website is a group of connected web pages under the same domain name. These pages are linked together, often through menus or clickable text. When you visit a website, you usually start at its homepage and navigate to other pages from there. Some websites are single-pages apps, meaning they update content dynamically without changing the URL.

Web Server

A web server is a computer that stores and delivers websites. It hosts the files that make up web pages and sends them to your browser when requested. One server can host multiple websites, so if a server goes down, several sites may become unavailable.

Web Service

A web service is software that performs tasks or provides data over the internet. It's usually backed by a web server and may include interactive web pages. Examples include services that resize images, show weather updates, or manage user logins.

Search Engine

A search engine is a web service that helps users find web pages and content like images or news. Examples include Google, Bing, and DuckDuckGo. While search engines are accessed through browsers, they are not the same as browsers. A browser displays web pages, while a search engine helps you find them.

How the web works: the basics

In many parts of the world, the web has become an essential part of daily life, much like everyday tools such as toothbrushes or cars. Even if you're not directly typing web addresses into a browser, many mobile apps you use rely on web technologies behind the scenes to fetch and display data.

When you access the web – like typing URL and pressing Enter – a lot happens in the background. Your browser sends a request toto a web server using a protocol called HTTP, which defines how data is exchanged. If the server finds the requested resource (like a web page or image), it sends it back in response.

Often, the initial request. For example, loading a website usually starts with downloading the main HTML file. As the browser reader that file, it may find links to other resources like stylesheets, scripts, or images, and request those too. Once all the necessary files are received, to browser processes and displays then to you.

Searching for information

As a web developer, searching for information is a regular part of your workflow — whether you're trying to recall syntax or solve a specific coding problem. Learning how to search effectively is essential.

If you already know a reliable site related to your topic, it's best to start there. For example, when looking up web technology features, you can search directly on MDN by typing terms like *box model*, *fetch()*, or *video element*. If you don't find what you need, broaden your search using a general search engine.

For coding problems, especially those involving specific tasks like printing the Fibonacci sequence or checking for prime numbers in JavaScript, websites like StackOverflow are great resources. If those don't help, again, try a broader search.

Experiment with different keywords and levels of specificity to see what gives the best results. You can also check out search tips to refine your technique.

Using AI

AI-generated search results offer a powerful way to find information quickly and efficiently. Tools like ChatGPT, Google Gemini, and Microsoft Copilot perform background searches and summarize the findings into clear, helpful answers. These tools can be accessed through chat interfaces or built into apps and software.

For coding, AI chat prompts are especially useful. You can use them to:

- Perform regular searches for documentation or feature explanations.

- Debug code by pasting it in and asking where the mistake is.

- Optimize working code to make it cleaner or more efficient.

- Get advice on strategies for solving problems or debugging.

A cautionary tale

AI tools are incredibly helpful, but they don't replace the need to learn how to code. You still need to understand what your code is doing, where it belongs, and how to solve problems logically. Relying solely on AI without grasping the fundamentals will limit your ability to work effectively as a developer.

AI can also make mistakes. Even though it sounds confident, it may give misleading or incorrect answers—sometimes subtly wrong. Since AI pulls information from various sources, it can mix accurate and inaccurate data, and it may favor outdated documentation. That's why it's important to **verify** AI-generated answers and not accept them blindly.

When learning, try solving problems on your own before turning to AI or search engines. This strengthens your skills and helps you become a better developer.

To search effectively:

- Include the programming language in your query (e.g., "fibonacci sequence in JavaScript").

- Save useful answers for future reference—you'll likely encounter the same issues again.

- If you get an error message, search for it directly; others have probably solved it before.

- Stick to trusted sources like MDN and StackOverflow.

You can also use advanced search techniques:

- Use quotes for exact phrases: "ant fish cheese"

- Use minus to exclude terms: ant cheese -fish

- Use OR to get results with either term: ant OR cheese

- Use intitle: to find pages with a keyword in the title: intitle:cheese