



How Does The Web Work?

Foundations Course

Introduction

Before you can understand how to program the web, you need a more rigorous understanding of the web itself than you likely have now. These concepts provide a more holistic understanding of the ecosystem in which you will be working and will enable you to talk intelligently with other developers about your work.

Lesson Overview

This section contains a general overview of topics that you will learn in this lesson.

- Describe what the internet is.
- Describe what packets are and how they are used to transfer data.
- Understand the differences between a web page, web server, web browser and search engine.
- Briefly explain what a client is.
- Briefly explain what a server is.
- Explain what IP addresses are.
- Explain what DNS servers are.

Assignment

2. Watch this [BBC short](#) for an overview of how the internet works.
3. Read this [article](#) from Mozilla on “How does the Internet work?”.
4. Watch [How the Internet Works in 5 Minutes](#).
5. Read up on the [differences](#) between a web page, a web server, and a search engine.
6. Watch this [Google short](#) explaining what a web browser is. Then, find out what web browser you are using right [now](#).
7. Read about how one part of the web [interacts with another](#) and [read about](#) or [watch](#) a DNS request in action.

Knowledge Check

This section contains questions for you to check your understanding of this lesson on your own. If you're having trouble answering a question, click it and review the material it links to.

- [What is a network?](#)
- [What is the internet?](#)
- [What is an IP address?](#)
- [What is a router?](#)
- [What is an ISP?](#)
- [What are packets and how are they used to transfer data?](#)
- [What is a client?](#)

- [What is a server?](#)
- [What is a web page?](#)
- [What is a web server?](#)
- [What is a web browser?](#)
- [What is a search engine?](#)
- [What is a DNS request?](#)
- [Which browser are you currently using?](#)
- [In your own words, explain what happens when you run a search on google.com.](#)

Additional Resources

This section contains helpful links to other content. It isn't required, so consider it supplemental.

- Listen to [Part 1](#) (starts around 8:30) and [Part 2](#) of Security Now Podcast's *How the web works* series.
- Watch [A packet's journey](#).
- Consider buying the book [Tubes: Behind the Scenes at the Internet](#).
- If you're in for a bit more reading, you can check out the [Introduction to HTTP](#) online book at LaunchSchool. This book also touches on some topics covered later in the curriculum, such as developer tools and security. Additionally, you can learn about HTTP tools, which you may find helpful in the future.
- Explore how fiber optics uses light to transmit data over long distances, and with integrated photonics, expands our virtual world beyond the internet. [The hidden network that makes the internet possible](#).

- Some advice on reading: We recommend that you only review the immediate links posted in our curriculum. You can always go deeper on any subject if you wish, but be careful not to overload yourself on information!

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