Poyo's guide to retro web development!

Poyo!

v0.2

Contents

Prologue (By WoepdieCat)

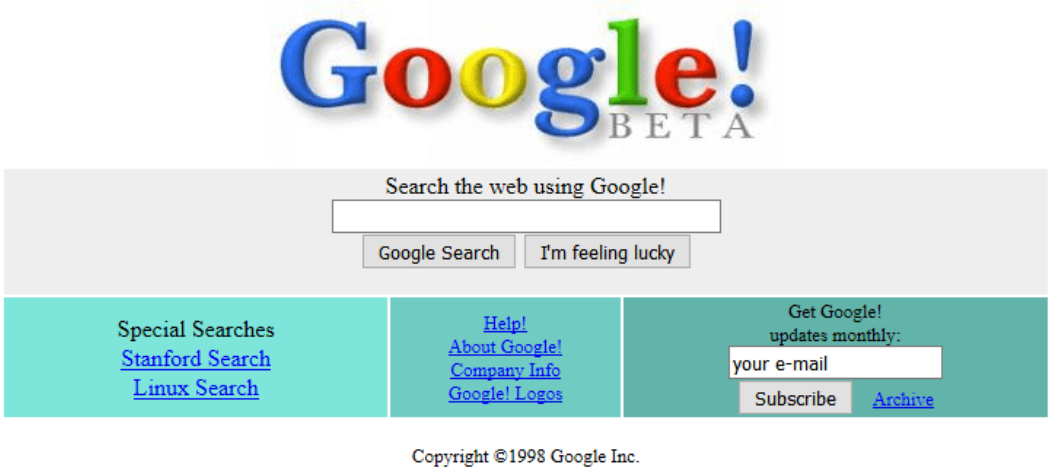
I trust Poyo! to take this topic seriously and show you what websites are really all about and the magic behind them

Brief introduction to the book

Howdy, internaut! If you're reading this book, I assume you're a nostalgic fellow who also wants to build a website reminiscent of the 90s. However, you may have tried to build one, and have discovered that creating such beautiful pieces of art is challenging. Don't worry! That's why I'm here to help you. :D

In this book, I will teach you how to build your own website from scratch, what the trends were in the 1990s-2000s, and how we can replicate the looks of such websites.

Back to the trends, There were many of them back in the 90s, such as having your visitors sign a guestbook, visitor counters, and blinkies/buttons(More on that later), and believe it or not, Comic Sans was all the rage worldwide. Yep O-O, Comic Sans. What the fu- We'll also talk about how to create a button yourself, and how to join a webring. Without further ado, let's get started!



Chapter 1: Tools and Setup

Since we'll be editing files in this book, we'll need to use a code editor. You can use whatever code editor you want, but because VScode is the most popular editor out there, we'll be using. We'll also need to use a version control tool, Git, to manage many versions of our code.

In this chapter, we will explore the powerful combination of Visual Studio Code (VScode) and various web development tools that will be very useful!

1.1.1 Getting Started with VScode

VScode is a popular code editor developed by Microsoft. It provides a wide range of features and extensions that make it a favorite among many web developers. To get started with VScode[1], it's as simple as visiting their official website[2] and downloading VScode. Afterward, make sure to run the installation wizard and you're now good to go!

1.1.2 Essential Extensions for Web Development in VScode

VScode by itself is good, but it has most of the features developers want. That's why VScode offers a handy collection of extensions that enhance the web development experience. These add new features such as lintering, syntax highlighting and grammar correction. They can be installed from the *extensions* tab in the left sidebar. Here are some essential extensions to consider:

1. **HTML CSS Support**: Provides autocompletion and syntax highlighting for HTML and CSS.
2. **Live Server**: Launches a local development server and automatically refreshes the browser whenever you make changes to your HTML, CSS, or JavaScript files. I personally love this extension because it makes web development so easy, that I can finish websites in a matter of minutes.
3. **Prettier**: Prettier automatically formats your code to ensure consistent styling and readability.
4. **Rainbow Indent**: It helps a lot with indenting and if you indent correctly, it will display a rainbow! :) Cool, isn't it?
5. **Live Share**: This extension allows you to share your local machine with your peers, so you can work collaboratively in a single dev environment! You can edit one file while your peer edits another one. It's a must-have extension in my opinion.

[1] Official video-guide: https://www.youtube.com/watch?v=B-s71n0dHUk

[2] You can get VScode from https://code.visualstudio.com/.

1.1.3 Collaboration and Remote Development

You may also want to collaborate with your friends on the making of your website. For that purpose, VScode enables seamless collaboration and remote development. Here are some things to consider:

1. **Live Share(extension)**: With Live Share, you can share your development environment with others, allowing them to edit and debug code in real time.
2. **GitHub Codespaces(service)**: GitHub offers a service called Codespaces, which provides a cloud-based development environment with VSCode pre-installed. With Codespaces, you can access a Linux machine from anywhere in the world, making it convenient for remote development.

1.1.4 How to use VSCode?

It's quite simple to use VScode, here's a step-by-step tutorial about it!

1. **Opening a Project**: Once you have installed VSCode, open it and you will see the welcome screen. From there, you can either open an existing project or create a new one. To open an existing project, click on 'Open Folder' and select the folder containing your project files.
2. **Editor Layout**: The VSCode interface consists of several components. The *editor groups* are the editor, where you write your code. On the left side, you have the *activity bar*, which provides access to different views like the file explorer, source control, extensions, and more. At the bottom, you have the *status bar*, which displays information about the current file, a handy terminal and it also provides quick access to various settings.

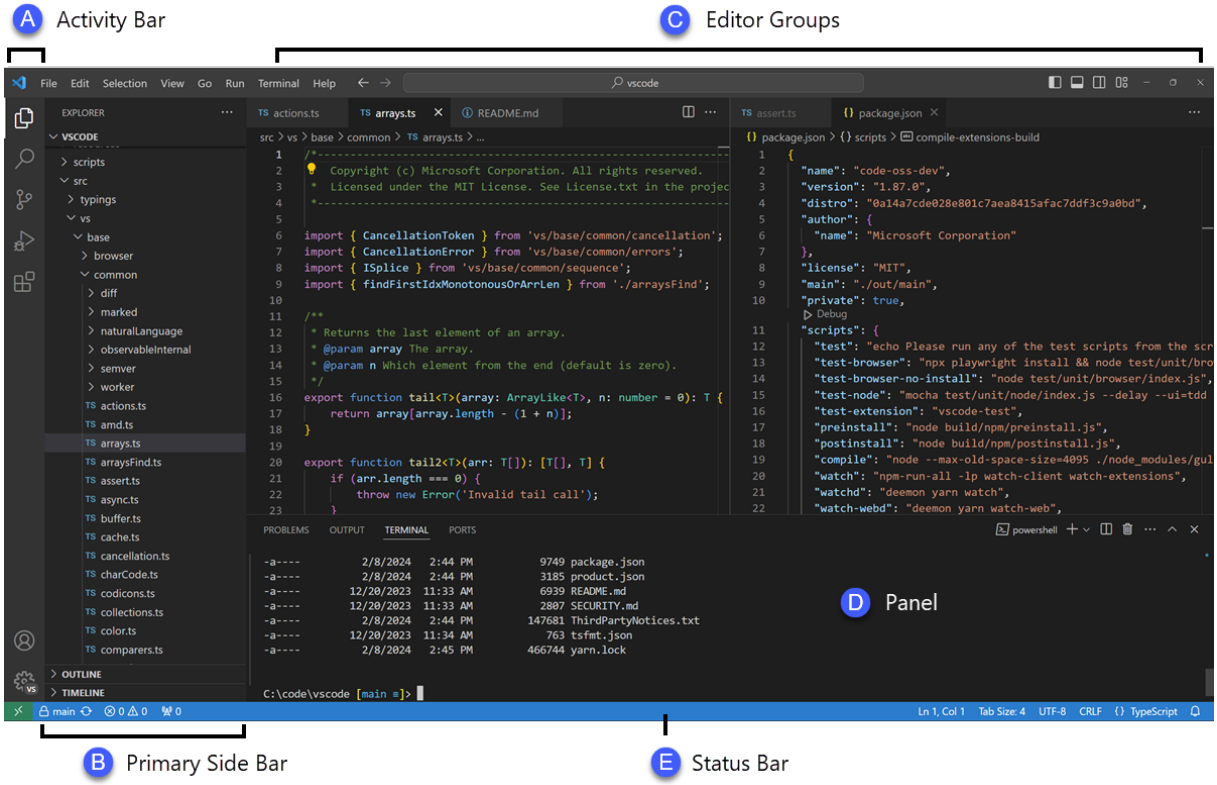


Figure 0.1: VScode components

3. **Terminal**: VScode has an integrated terminal to make coding easier. You can access it by opening the bottom bar. But be careful! It will be a live terminal running on your computer. I suggest doing all of your changes in a single folder and then, once you're finished, move all of the files inside to the location where you'll be running them.

1.2 Git

1.2.1 What is Git?

Figure 0.2: Git's logo

Git is a widely used version control system. It's useful for having and maintaining different versions of your code, and to store them in GitHub for free. Git works by branches. Textually from Git's docs:

> Branching means you diverge from the main line of development and continue to do work without messing with that main line.

What does that mean? In Git there is a *main* branch, and then you can create more branches to independently write code/features for your project without messing up the *main* branch, the current *working* code. And if you Once you finish coding, you can pull the branch to *main* Thankfully, VScode offers excellent integration with Git, which means we won't have to ever use any Git commands while using VScode. However, it's really important to learn them, since they can help us a lot in many scenarios. Let's see how can we use it!

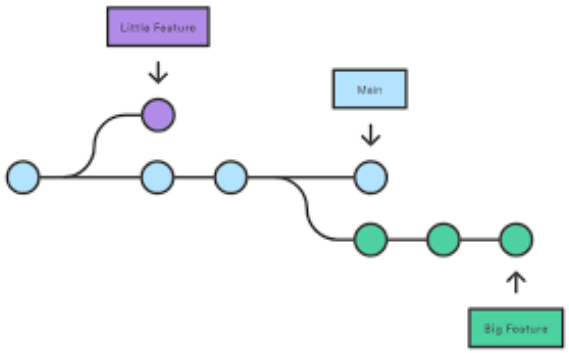


Figure 0.3: An example of a Git repository with its *main*, *big feature* and *little feature* branches. As you can see, they all diverge from the main branch.

How to use git?

Git is a command line tool. That means it can be accessed and used via the terminal. The main Git commands[3] are:

1. To authenticate yourself:

```
git config --global user.name "<username>"
git config --global user.email <email>
```

2. To start developing:

    - `git init` - Create a new repository
    - `git clone <repository url>` - Download a copy of a repository to commit changes or just to use the code.

[3] Full list of commands available at https://confluence.atlassian.com/bitbucketserver/basic-git-commands-776639767.html

3. To save your work

    - `git add .` - Add all the files changed to the commit.
    - `git commit -m "<Commit message>"` - Commit changes to the head branch of your git repo(repository)
    - `git push` - Send the changes and store them in the GitHub repo

An example of me cloning my repository named 'repository', changing one file, adding it to the commit, and pulling the commit to the repo.

```
git config --global user.name "poyo"
git config --global user.email poyo@example.com
git clone https://github.com/mrdapoyo/repository

*Edits file data.txt*

git add
git commit -m "Poy Poyo! Cleaned the code"
git push
```

In this chapter, we managed to get started with VScode, installed some essential extensions for web development, collaboration features and we learned about version control with Git. In the next chapter, we will learn about the basics of building websites. See you there!

Chapter 2: The basics

2.1 What is a website

Nowadays we all know what a website is. You probably browse them daily, via Google Chrome or any other browser. Quoting the Wikipedia;

> A website (also written as a web site) is a collection of web pages and related content identified by a common domain name and published on at least one web server. Websites are typically dedicated to a particular topic or purpose, such as news, education, commerce, entertainment, or social media. Hyperlinking between web pages guides the navigation of the site, which often starts with a home page.

And if you pack all together every website in the world, you get the World Wide Web(A.K.A internet)! In case you don't know what the internet is, imagine the whole internet as a jar of cookies; The jar is the World Wide Web, the cookies are websites and each piece of chocolate is a web page. What's even cooler is that websites can serve various purposes. From selling books to broadcasting the radio, every website is can do anything you want! Amazing, isn't it?

Websites connect to clients(Users) via HTTP requests. They're pretty straightforward and we won't cover them in our book since web browsers already handle that stuff for us. Let me link a scheme down here to show you how the connections work.

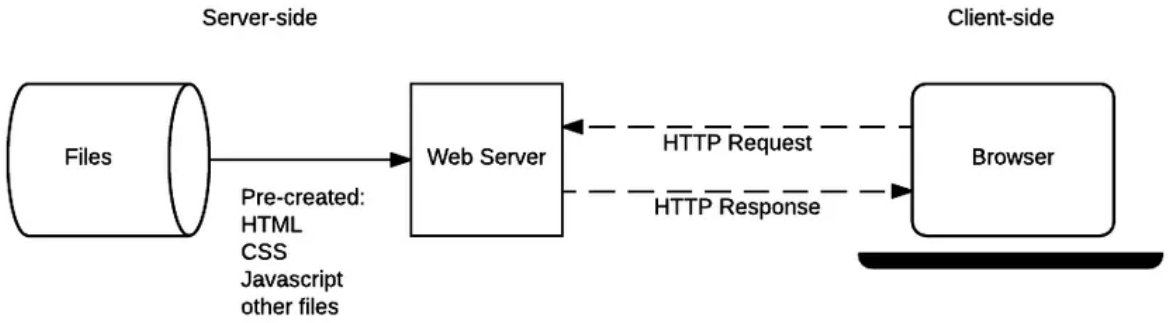


Figure 0.4: Simple example of a connection between the client and a web server.

You can see there is a connection between the *web server* and the *client*. A web server is a machine *serving*(Sending the files) files to the *client*. The *client* is the web browser the user uses to browse the web through via a terminal such as a PC or a phone.

But you may be asking yourself, what's a web browser? A web browser is a piece of software that enables you to navigate through websites. It retrieves the HTML code from any Web Server and it displays the website on the client following a set of standards that all browsers share.

Now that we know what the internet, websites, and web browsers are, let's dive further into how they work.

2.2 Skeleton of a web page

Websites are made from HTML tags. Most of these tags are composed of two sub-tags. Both tags contain a 'less than'(<) symbol, the name of the tag, its attributes, and a 'greater than'(>) symbol. The last tag also contains a slash(/) after the 'less than' symbol. An html tag with its opening and closing tags would look like . However, as I also said, there are tags that don't need a closing tag, such as the <img>,
 and <hr> tags.

Some tags are - The <html> tag, which contains the body and the head of an HTML document. - the <h1> tag, which displays a heading. - The tag, which displays a paragraph. - The <a> tag, which displays a link.

All of these tags are inside other tags, and they can be represented as a Matrioska doll. There is a hierarchy they all follow. Every website follows this hierarchy. And in case it's broken, web browsers might be unable to render it properly.

Figure 0.5: A tag inside a tag inside a tag inside a tag. They follow a hierarchy, from bigger to smaller.

We can see there is a tag, inside tags. Let's see an HTML code snippet to further understand what HTML is;

```
<!DOCTYPE html>
<html>
<head>
    <title>Hello world!</title>
</head>

    <body>
        <h1>Hello world!</h1>
    </body>
</html>
```