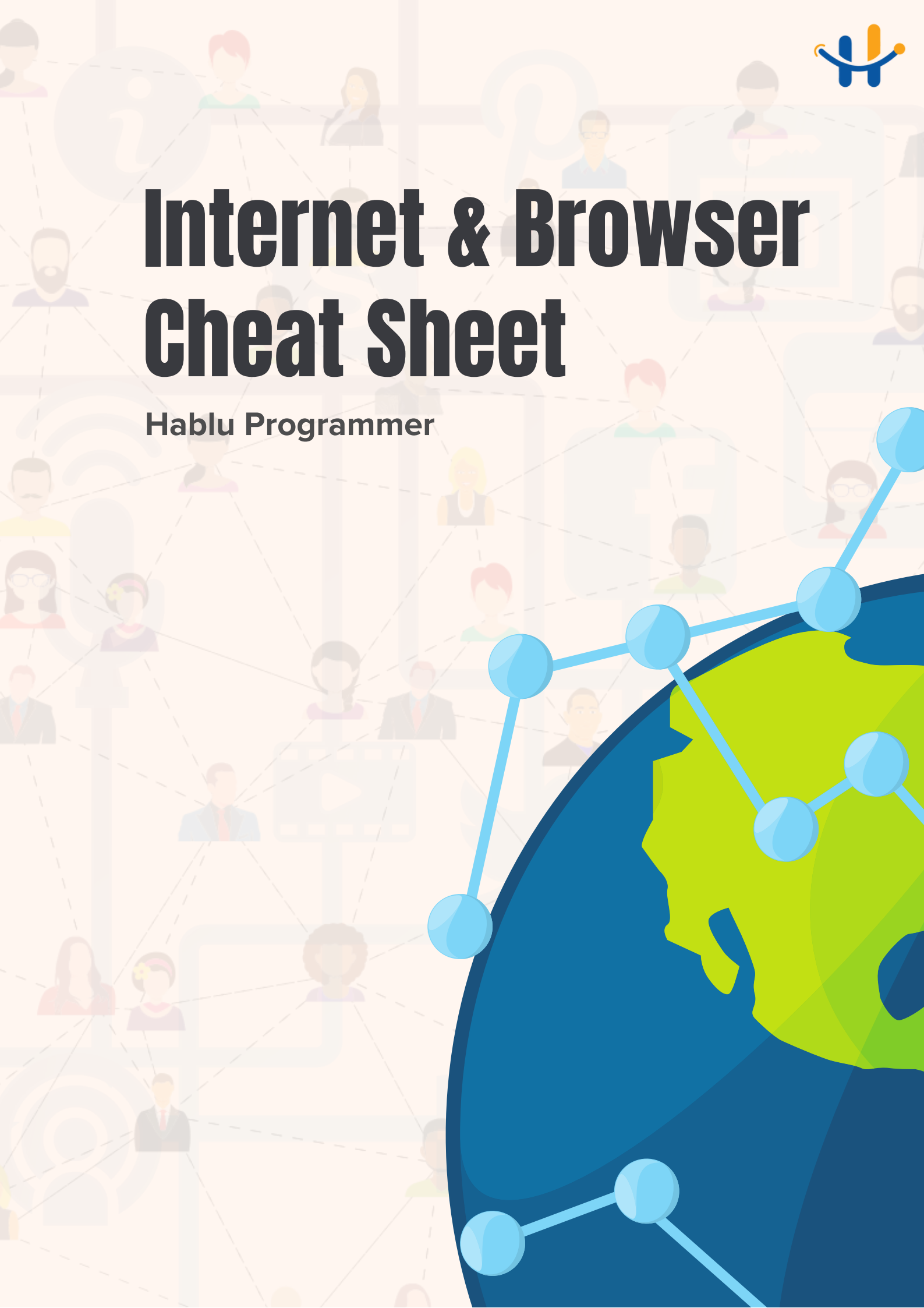# Internet & Browser Cheat Sheet

Hablu Programmer

How Does Internet Works & Environment Setup

⭐ How Does The Internet Works

The Internet is a global network of interconnected devices, including computers and servers. It functions by breaking data into packets, routing them through a complex system of routers and switches, and using IP addresses for identification. Domain Name System (DNS) translates human-friendly domain names into IP addresses. Various protocols enable communication and data exchange. The Internet is a network of networks, connecting via ISPs and data transmission technologies. Security measures protect data, and content delivery networks (CDNs) improve access to web resources. Users access the Internet via devices and applications, facilitating two-way communication, content sharing, and information access worldwide.

⭐ What Is HTTP,HTTPS

HTTP (Hypertext Transfer Protocol) and HTTPS (Hypertext Transfer Protocol Secure) are both protocols for transmitting data between your web browser and the website you're visiting. The key difference is security.

HTTP is plain text, making data vulnerable to interception. This is fine for many websites but risky for sensitive data. In contrast, HTTPS adds a layer of security through SSL/TLS encryption, ensuring data integrity and confidentiality. When you visit an HTTPS site, the data exchanged is encrypted, reducing the risk of eavesdropping, data theft, and man-in-the-middle attacks. HTTPS is essential for protecting sensitive transactions, login credentials, and personal information, making it the preferred choice for secure web browsing and e-commerce.

⭐ What Is Domain & Hosting!

A domain is a unique web address that users type into their browsers to access websites, like "example.com." It serves as a human-readable label for an IP address, simplifying navigation on the internet. Domain registration involves leasing or owning a specific domain name from a domain registrar.
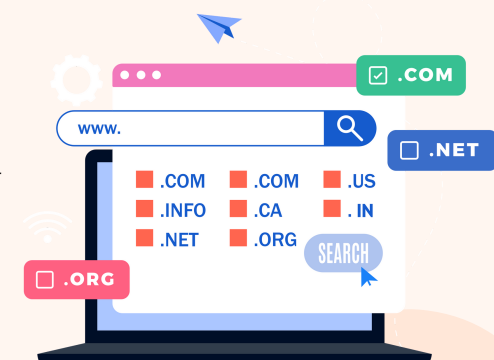
Hosting, on the other hand, refers to the physical or virtual servers where website files and data are stored and made accessible on the internet. Web hosting providers offer various hosting services, from shared hosting for small websites to dedicated servers for more significant operations. Users require both domain registration and hosting services to establish and run a website on the internet.

⭐ Understanding DNS How It Works

DNS (Domain Name System) is like the internet's phonebook, translating human-friendly domain names (e.g., "example.com") into IP addresses that computers use to locate and connect to websites and services. When a user enters a URL, their device sends a DNS query to a DNS server. The server searches for the corresponding IP address in its records or contacts other DNS servers until it finds the information. Once the IP address is retrieved, it's used to establish a connection, allowing users to access the desired website or service. DNS is vital for internet navigation, making web addresses comprehensible for humans while facilitating seamless data routing for computers.

⭐ Understanding Browser How it Works

A web browser is software that enables users to access and interact with websites. When a user enters a URL, the browser contacts a DNS server to resolve the website's IP address. It then establishes a connection with the web server, which sends back HTML, CSS, and other files. The browser renders these files, displaying the webpage as we see it. It processes JavaScript for interactivity, while cookies store user information. Browsers maintain a history, bookmarks, and cache to enhance user experience. They also ensure security by blocking malicious sites and offering secure connections through HTTPS. Extensions provide additional functionality.

⭐ Code editor:

A code editor is a software application that's specifically designed for writing and editing code. It provides features and tools to make the coding process more efficient and error-free.
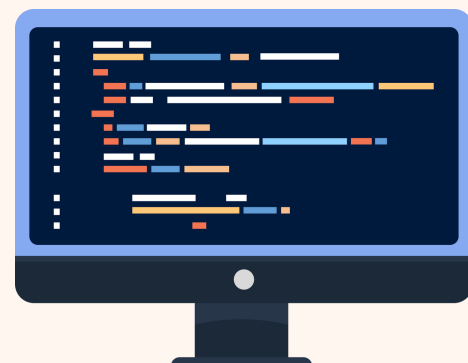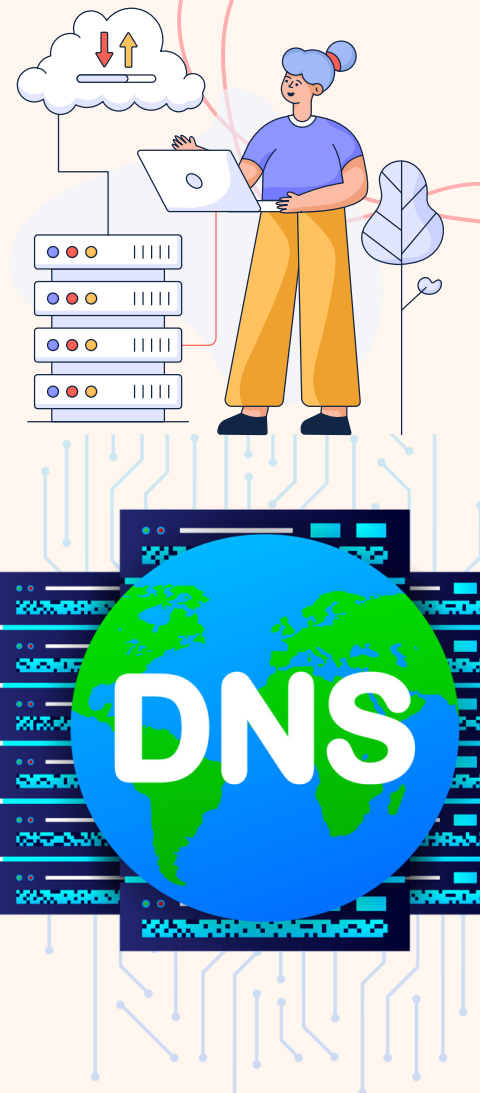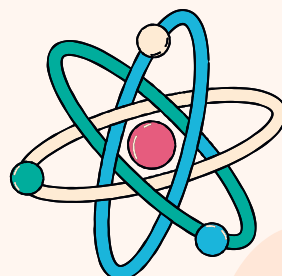
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⭐ VS Code Importent Extensions

1. **Prettier**: This extension will help you to format the JavaScript, HTML, CSS code. You can configure it as you need.
2. ****Path intellisense**: Path intellisense is a great tool that makes it easier for files Path.
3. ****Better Comments**: Commenting is a big part of programming, and without it, you'll never be able to understand your own or others' code.
4. **Live Server**: open live server
5. **Remote SSH:** The Remote – SSH extension for Visual Studio Code allows you to work on remote servers or virtual machines using the secure SSH protocol. It provides a seamless development experience by enabling you to edit files, run commands, and debug applications directly from your local VS Code instance in remote environments.
6. **Live Share:** Live share enables real-time collaboration with other developers by allowing you to share your development environment. It allows for shared editing, debugging, and terminal sessions, fostering effective teamwork and enabling seamless pair programming.
7. **CodeSnap**: CodeSnap simplifies the process of taking code screenshots. It captures your code snippets and generates an image file that you can easily share with others, making it ideal for documentation, tutorials, and sharing code on social media platforms.
8. **vscode-icons:** vscode-icons brings a touch of visual brilliance to your coding workspace by replacing the default file icons with a vast collection of attractive and intuitive icons.
9. **"HTML CSS Support "** After Complete The HTML CSS Course : • Offers intelligent autocompletion for HTML and CSS code, reducing manual typing and improving efficiency.
10. **ESLint**: ESLint is a widely adopted linter that helps you catch errors, enforce coding standards, and improve code quality in JavaScript and TypeScript.
11. **JavaScript (ES6) code snippets:** JavaScript (ES6) code snippets extension offers a collection of handy code snippets that can save you time and effort while writing JavaScript code.

The End