Front-end

Internet
- How does the internet work?
- What is HTTP?
- What is Domain Name?
- What is hosting?
- DNS and how it works?
- Browsers and how they work?

HTML
- Learn the basics
- Writing Semantic HTML
- Forms and Validations
- Accessibility
- SEO Basics

CSS
- Learn the basics
- Making Layouts
- Responsive Design

JavaScript
- Learn the basics
- Learn DOM Manipulation
- Fetch API / Ajax (XHR)

Version Control Systems
- Git
VCS Hosting
- GitHub
- GitLab
- Bitbucket

Package Managers
- npm
- pnpm
- yarn

We have trimmed down the CSS part for the sake of brevity. However, I would recommend reading about CSS in JS, CSS Modules, Styled Components, Vanilla Extract, Panda CSS and look into different frameworks with pre-built components such as MUI, Joy UI, Chakra UI and Mantine.

Pick a Framework
- React
- Vue.js
- Angular
- Svelte
- Solid JS
- Qwik

CSS Architecture
- BEM
CSS Preprocessors
- Sass
- PostCSS

Writing CSS
- Tailwind
- Radix UI
- Shadcn UI

Build Tools
- Module Bundlers
  - Vite
  - esbuild
  - Webpack
  - Rollup
  - Parcel
- Task Runners
  - npm scripts
- Linters and Formatters
  - Prettier
  - ESLint

Testing your Apps
- Vitest
- Jest
- Playwright
- Cypress

Learn the difference between Unit, Integration, and Functional tests and learn how to write them with the tools listed on the right.

Authentication Strategies
JWT, OAuth, SSO, Basic Auth, Session Auth etc.

Web Security Basics
- CORS / HTTPS
- Content Security Policy
- OWASP Security Risks

Web Components
- HTML Templates
- Custom Elements
- Shadow DOM

Type Checkers
- TypeScript

Server Side Rendering (SSR)
- React — Next.js / Remix
- Angular — Universal
- Vue.js — Nuxt.js
- Svelte — Svelte Kit

GraphQL
- Apollo
- Relay Modern

PRPL Pattern
- RAIL Model
- Performance Metrics
- Using Lighthouse
- Using DevTools

Calculating, Measuring and improving performance
Performance Best Practices

Storage
- Web Sockets
- Server Sent Events
- Service Workers
- Location
- Notifications
- Device Orientation
- Payments
- Credentials

Learn different Web APIs used in PWAs

Progressive Web Apps

Static Site Generators
- Vuepress
- Jekyll
- Hugo
- Nuxt.js
- Astro
- Eleventy
- Next.js
- Remix

Desktop Applications
- Electron
- Tauri
- Flutter

Mobile Applications
- React Native
- Flutter
- Ionic
- NativeScript

Bonus Content

Continue Learning with following relevant tracks

HP LaserJet 400 M401dn

Network Summary

TCP/IP(v4)

Status	=Ready
IPv4 Address	=192.168.0.14
Subnet Mask	=255.255.255.0
Default Gateway	=192.168.0.1
IP Configured By	=Manual
IP Preferred Address Method	=Manual
TFTP Server	=Not Specified
WINS Server	=Not Specified
Preferred DNS Address	=192.168.0.2
Alternate DNS Address	=Not Specified

Network Identification

Host Name	=NPI17759D
Domain Name (IPv4/IPv6)	=
Domain Name (IPv6 only)	=
Bonjour Service Name	= ICT Printer
Bonjour Domain Name	= NPI17759D.local.
Bonjour Highest Priority Service	=IPP Printing

Syslog

Server IP	=Not Specified
Server Port	=0
Max Messages Per Minute	=0
Max Message Priority	=0
Facility	=LPR
Server Connection Type	=TCP

TCP/IP(v6)

Status	=Ready
Link-Local Address	=
FE80::1260:48FF:FE17:759D	
Stateless (from Router)	=Not Specified
Stateful (from DHCPv6)	=Not Specified

Network Hardware Configuration

Status	= Connected
Hardware Address	=10:60:4b:17:75:9d
Link Speed and Duplex Negotiation	= Manual
Link Speed	= 100 Mbps
Duplex	= Half

SNMP

SNMPv1/v2
Status	=
Read-Write Access Enabled	
Set Community Name	=
Not Specified (Defaults to 'public')	
Get Community Name	=
Not Specified (Defaults to 'public')	

SNMPv3
Status	=Disabled

Network Statistics

Total Packets Received	=12109
Unicast Packets Received	=6342
Bad Packets Received	=0
Framing Errors Received	=0
Total Packets Transmitted	=5507
Unsendable Packets	=0
Transmit Collisions	=56
Transmit Late Collisions	=0
WS-Print Users	=6

Network Configuration

Date/Time	: 28-JUN-2024 18:56 FRI
Model Name	: HP Laser MFP 137fnw
Machine Serial Number	: CNB2R67TNB
Product Number	: 4ZB84A
Host Name	: HP7C4D8F7356A0

Network Information

General Information
Host Name	: HP7C4D8F7356A0
Contact	: Administrator
Location	:
MAC Address	: 7C:4D:8F:73:56:A0
NIC Firmware Version	: 31.03.60_0.1_13-11-18
Network Connection Status	: Connected

TCP/IPv4 Information
IP Assignment	: STATIC
IP Address	: 192.168.0.52
SubNet Mask	: 255.255.255.0
Default Gateway	: 192.168.0.1

TCP/IPv6 Information
IPv6 Protocol	: Disabled
Link-Local Address	:
Stateless Address	:
Stateful Address	:
Manual Address	:
DHCPv6 Configuration	: Use DHCP as directed by a router

Raw TCP/IP Printing Information
Raw TCP/IP Printing Protocol	: Enabled
Port Number	: 9100

LPR/LPD Information
LPR/LPD Protocol	: Enabled
Port Number	: 515

IPP Information
IPP Protocol	: Enabled
Printer URI	: ipp://192.168.0.52/ipp/print
Authentication Type	: None

SLP Information
SLP Protocol	: Disabled
Port Number	: 427

UPnP Information
SSDP Protocol	: Disabled
Port Number	: 1900

mDNS Information
mDNS Protocol	: Enabled
Port Number	: 5353

SNMP Information
SNMPv1/v2 Protocol	: Enabled
SNMPv3 Protocol	: Disabled

HTTP Information
HTTP Protocol	: Enabled
Port Number	: 80

SetIP Information
SetIP Protocol	: Enabled
Port Number	: 6000

IP Security Information
IPSec Protocol	: Disabled

IP Filtering Information
IPv4 Filtering	: Disabled
IPv6 Filtering	: Disabled

MAC Filtering Information
MAC Filtering	: Disabled

Wi-Fi Network Information

General Information
SSID	: CBP_WIFI
Operation Mode	: Infrastructure

Status Information
Link Status	: Not Connected
Link Quality	: No Signal
Current Channel	: 1

WPS Information
PIN Number	: 78212633

Wi-Fi Direct Information
Wi-Fi Direct	: Enabled
Device Name	: HR PRINTER
IP Address	: 192.168.223.1
Role	: Group Owner
Current SSID	: DIRECT-A0-HP HR PRINTER
Network Key	: Stock@123
Current Status	: Connected (0)

Network Configuration

Date/Time	: 28-JUN-2024 17:07 FRI
Model Name	: HP Laser MFP 137fnw
Machine Serial Number	: CNB2R67TNB
Product Number	: 4ZB84A
Host Name	: HP7C4D8F7356A0

Network Information

General Information

Host Name	: HP7C4D8F7356A0
Contact	: Administrator
Location	:
MAC Address	: 7C:4D:8F:73:56:A0
NIC Firmware Version	: 31.03.60_0.1_13-11-18
Network Connection Status	: Connected

TCP/IPv4 Information

IP Assignment	: DHCP
IP Address	: 192.168.20.101
SubNet Mask	: 255.255.255.0
Default Gateway	: 192.168.20.1

TCP/IPv6 Information

IPv6 Protocol	: Disabled
Link-Local Address	:
Stateless Address	:
Stateful Address	:
Manual Address	:
DHCPv6 Configuration	: Use DHCP as directed by a router

Raw TCP/IP Printing Information

Raw TCP/IP Printing Protocol	: Enabled
Port Number	: 9100

LPR/LPD Information

LPR/LPD Protocol	: Enabled
Port Number	: 515

IPP Information

IPP Protocol	: Enabled
Printer URI	: ipp://192.168.20.101/ipp/print
Authentication Type	: None

SLP Information

SLP Protocol	: Disabled
Port Number	: 427

UPnP Information

SSDP Protocol	: Disabled
Port Number	: 1900

mDNS Information

mDNS Protocol	: Enabled
Port Number	: 5353

SNMP Information

SNMPv1/v2 Protocol	: Enabled
SNMPv3 Protocol	: Disabled

HTTP Information

HTTP Protocol	: Enabled
Port Number	: 80

SetIP Information

SetIP Protocol	: Enabled
Port Number	: 6000

IP Security Information

IPSec Protocol	: Disabled

IP Filtering Information

IPv4 Filtering	: Disabled
IPv6 Filtering	: Disabled

MAC Filtering Information

MAC Filtering	: Disabled

Wi-Fi Network Information

General Information

SSID	: CBP
Operation Mode	: Infrastructure

Status Information

Link Status	: Not Connected
Link Quality	: No Signal
Current Channel	:

WPS Information

PIN Number	: 78212633

Wi-Fi Direct Information

Wi-Fi Direct	: Enabled
Device Name	: HR PRINTER
IP Address	: 192.168.223.1
Role	: Group Owner
Current SSID	: DIRECT-A0-HP HR PRINTER
Network Key	: Stock#123
Current Status	: Connected (0)

Network Configuration

Date/Time	: 28-JUN-2024 17:00 FRI
Model Name	: HP Laser MFP 137fnw
Machine Serial Number	: CNB2R67TNB
Product Number	: 4ZB84A
Host Name	: HP7C4D8F7356A0

Network Information

General Information
Host Name	: HP7C4D8F7356A0
Contact	: Administrator
Location	:
MAC Address	: 7C:4D:8F:73:56:A0
NIC Firmware Version	: 31.03.60_0.1_13-11-18
Network Connection Status	: Network Cable Unplugged

TCP/IPv4 Information
IP Assignment	: DHCP
IP Address	: 169.254.77.248
SubNet Mask	: 255.255.0.0
Default Gateway	: 0.0.0.0

TCP/IPv6 Information
IPv6 Protocol	: Disabled
Link-Local Address	:
Stateless Address	:
Stateful Address	:
Manual Address	:
DHCPv6 Configuration	: Use DHCP as directed by a router

Raw TCP/IP Printing Information
Raw TCP/IP Printing Protocol	: Enabled
Port Number	: 9100

LPR/LPD Information
LPR/LPD Protocol	: Enabled
Port Number	: 515

IPP Information
IPP Protocol	: Enabled
Printer URI	: ipp://169.254.77.248/ipp/print
Authentication Type	: None

SLP Information
SLP Protocol	: Disabled
Port Number	: 427

UPnP Information
SSDP Protocol	: Disabled
Port Number	: 1900

mDNS Information
mDNS Protocol	: Enabled
Port Number	: 5353

SNMP Information
SNMPv1/v2 Protocol	: Enabled
SNMPv3 Protocol	: Disabled

HTTP Information
HTTP Protocol	: Enabled
Port Number	: 80

SetIP Information
SetIP Protocol	: Enabled
Port Number	: 6000

IP Security Information
IPSec Protocol	: Disabled

IP Filtering Information
IPv4 Filtering	: Disabled
IPv6 Filtering	: Disabled

MAC Filtering Information
MAC Filtering	: Disabled

Wi-Fi Network Information

General Information
SSID	: CBP
Operation Mode	: Infrastructure

Status Information
Link Status	: Not Connected
Link Quality	: No Signal
Current Channel	:

WPS Information
PIN Number	: 78212633

Wi-Fi Direct Information
Wi-Fi Direct	: Enabled
Device Name	: HR PRINTER
IP Address	: 192.168.223.1
Role	: Group Owner
Current SSID	: DIRECT-A0-HP HR PRINTER
Network Key	: Stock@123
Current Status	: Connected (0)