

Being a Pro Web Developer: The Big Picture

Nandakumar Edamana

2026-07-03

Being Clueless

I heard you are studying AI-assisted Web development. . .



Figure 1: News from The Guardian

Are you in control yet? Do you want to be?

What Would You Prompt?

Now that you are using LLMs. . .

- Goal: Create a portfolio website.

What Would You Prompt?

Now that you are using LLMs. . .

- Goal: Create a portfolio website.
- Goal: Create an online notepad.

What Would You Prompt?

Now that you are using LLMs. . .

- Goal: Create a portfolio website.
- Goal: Create an online notepad.
- Goal: Create a small social networking site.

What Would You Prompt?

Now that you are using LLMs. . .

- Goal: Create a portfolio website.
- Goal: Create an online notepad.
- Goal: Create a small social networking site.

What make these three goals fundamentally different?

Who Is a Developer?

A coder? A programmer? An architect? A tester?

What Makes You a Pro?

What Makes You a Pro?

- So many languages? JavaScript, Python, Go, ...

What Makes You a Pro?

- So many languages? JavaScript, Python, Go, ...
- Data Structures and Algorithms? Trees, Quicksort, ...

What Makes You a Pro?

- So many languages? JavaScript, Python, Go, ...
- Data Structures and Algorithms? Trees, Quicksort, ...
- Paradigms and Design Patterns? OOP, Factory Method, ...

What Makes You a Pro?

- So many languages? JavaScript, Python, Go, ...
- Data Structures and Algorithms? Trees, Quicksort, ...
- Paradigms and Design Patterns? OOP, Factory Method, ...

They all matter. But...

Situation

- It works on Chrome, but not on Firefox

Situation

- It works on Chrome, but not on Firefox
- Oops, looks like the DB I picked does not support JSON records. . .

Situation

- It works on Chrome, but not on Firefox
- Oops, looks like the DB I picked does not support JSON records. . .
- I had no idea the npm package I added to my backend was malware. . .

A Pro Follows. . .

- Standards

A Pro Follows. . .

- Standards
- Official documentation

A Pro Follows. . .

- Standards
- Official documentation
- Security advisories

A Pro Follows. . .

- Standards
- Official documentation
- Security advisories
- Blogs about experiences and pitfalls

Situation

- Just found a bug that wasn't there two months ago. No idea what change introduced it.

Situation

- Just found a bug that wasn't there two months ago. No idea what change introduced it.
- I installed all the dependencies on my machine,

Situation

- Just found a bug that wasn't there two months ago. No idea what change introduced it.
- I installed all the dependencies on my machine, the tester's machine,

Situation

- Just found a bug that wasn't there two months ago. No idea what change introduced it.
- I installed all the dependencies on my machine, the tester's machine, my manager's machine,

Situation

- Just found a bug that wasn't there two months ago. No idea what change introduced it.
- I installed all the dependencies on my machine, the tester's machine, my manager's machine, the server, and...

Situation

- Just found a bug that wasn't there two months ago. No idea what change introduced it.
- I installed all the dependencies on my machine, the tester's machine, my manager's machine, the server, and...
 - everything is a mess

Situation

- Just found a bug that wasn't there two months ago. No idea what change introduced it.
- I installed all the dependencies on my machine, the tester's machine, my manager's machine, the server, and...
 - everything is a mess
 - nothing works...

Situation

- Just found a bug that wasn't there two months ago. No idea what change introduced it.
- I installed all the dependencies on my machine, the tester's machine, my manager's machine, the server, and...
 - everything is a mess
 - nothing works...
 - wait, I found a solution...

Situation

- Just found a bug that wasn't there two months ago. No idea what change introduced it.
- I installed all the dependencies on my machine, the tester's machine, my manager's machine, the server, and...
 - everything is a mess
 - nothing works...
 - wait, I found a solution...
 - now I have to apply it everywhere :(

A Pro Employs. . .

- Version Control

A Pro Employs. . .

- Version Control
- Containers

A Pro Employs. . .

- Version Control
- Containers
- CI/CD

A Pro Employs. . .

- Version Control
- Containers
- CI/CD
- Test Automation

A Pro Empathizes. . . (1)

Online cross-browser testing

Cybersecurity sandbox

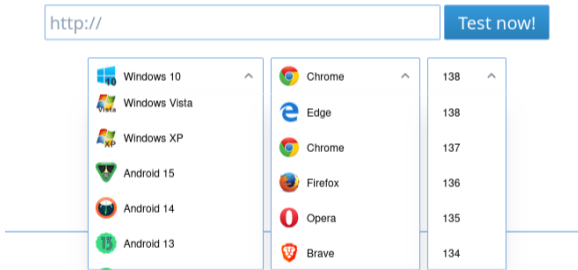


Figure 2: Cross-browser testing (browserling.com)

A Pro Empathizes. . . (2)



Figure 3: Feature support across browsers (caniuse.com)

A Pro Empathizes. . . (3)

Diagnose performance issues

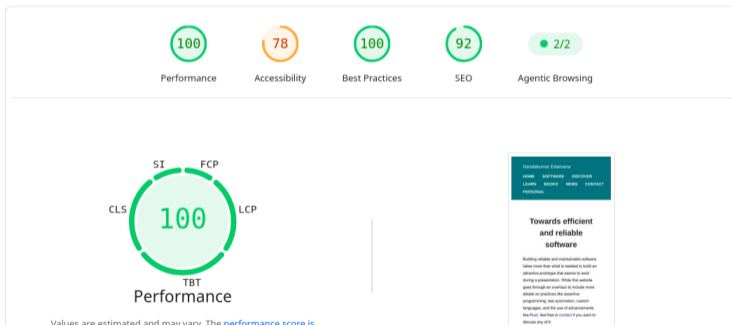


Figure 4: Performance diagnosis (pagespeed.web.dev)

Is It Just Technical?

- Branding
- Documentation
- Support
- Community involvement

FOSS: Get Everything and Give Back

- What is Free/Open Source?

FOSS: Get Everything and Give Back

- What is Free/Open Source?
- How it helps you grow