

## CS-3305 Web Programming 2

Sana Ur Rehman Learning Journal Unit 1 2/1/25 The discussion and readings really opened my eyes to how radically the internet has developed since its early days. I found it amusing how Web 1.0 was essentially a digital version of traditional media - static, one-way communication where firms just uploaded their brochures online. The shift to Web 2.0 wasn't merely a technical improvement, it radically revolutionized how we interact online.

What startled me most was learning about the significance of open-source technology in fostering Web 2.0 adoption. I wasn't aware that MySQL was so critical to early firms, including Google. It makes obvious sense though - having free, robust database technology meant enterprises could construct interactive websites without significant upfront expenses. That's probably why we witnessed such a proliferation of new web services in the 2000s.

The technical features of server-side programming languages originally baffled me, especially the distinction between interpreted and compiled languages. But the reading by Tomassetti helped clarify this - it's like the difference between reading a book directly (interpreted) or translating it first into another language (assembled). This helped me realize why PHP became so popular for Web 2.0 development - you could edit code right on the server without recompiling. I'm developing a greater grasp of web architecture concepts. The explanation of the 3-tier architecture made me realize how much intricacy lies beneath even simple webpages. Every time I use Facebook or Twitter now, I think about all the layers functioning together - the frontend JavaScript, the server processing, the database storing everything.

The toughest topic for me was grasping n-tier architecture. While I got the basic idea of separating appearance, application logic, and data layers, it took me some time to grasp why you could need extra tiers. After reading on the web, I learned it's about scalability and flexibility - you can add specialized servers for things like caching or load balancing as your program

expands.

I'm learning that I grasp technical concepts better when I can apply them to real-world examples. When the readings highlighted how Web 2.0 facilitated user-generated content, I instantly thought about how YouTube grew from a simple video-sharing site to a whole content development platform. This helps me connect abstract technical principles to actual applications. The information has practical relevance to my professional ambitions in web development. Understanding the progression from Web 1.0 to 2.0 helps me grasp why certain technical decisions were taken and how they affect present web development techniques. I'm particularly interested in examining how these foundations are growing into Web 3.0 concepts. Looking at the future, I want to look more into specific server-side technologies. The facts from W3Techs about programming language usage were eye-opening - PHP still dominates despite newer options available. I'm keen to understand the trade-offs between different server-side technologies and how to choose the best one for different applications. This week's unit has underlined that web development isn't just about coding - it's about

knowing the wider picture of how different technologies work together to create dynamic experiences. I feel more confident discussing these issues with peers and look forward to utilizing this knowledge in practical applications.

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