

# Course overview & Web Development Evolution

## Frontend Programming Languages

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# Fakhriddin (Faha) Abdurakhimov



- SWE @ Google
- Ex Senior Software Engineer @ Epm Systems
- Azure Certified Developer
- 7+ years of experience in web development
- I started of with HTML/CSS/Jquery web site development
- First programming language is PHP
- I practice Vue, Angular, React
  - My favorite is Vue
- Course goal: Introduction to modern frontend technologies



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# Key Lesson

Practice



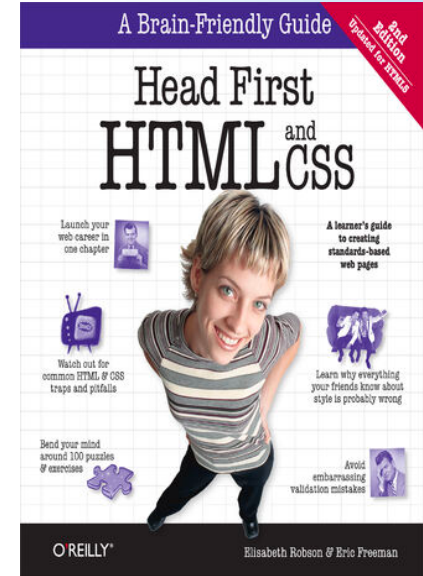


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# Fundamentals of Fundamentals

- Vscode/Git/Nodejs set up environment
- HTML & CSS - basics
- Bootstrap 5 - overview
- Simple Website markup
- SASS
- CSS flexbox
- Vanilla javascript & JQuery
- Bootstrap javascript components
- Improving simple website with Carousel / Gallery / To top button with JQuery
- animate.js, wow.js, some other js





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# Javascript as a programming language

- Fundamentals
- Code quality
- Objects: the basics
- Data types
- Advanced working with functions
- Classes - OOP
- Functional programming
- Error handling
- Promises, async/await

# Browser: Document, Events, Interfaces

- How it works
- Event Loop
- HTTP/WebSockets
- Storing data in the browser
- CORS/XSS/Iframes
- Document
- Events
- Forms, controls



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# Typescript as a programming language

- Basics
- Everyday types
- Narrowing
- Classes
- Generics
- Advanced



# Framework

- Vue
  - Components
  - Events
  - LifeCycle
  - Forms
  - Vue Developer Tools
  - Vue Router
  - Vuex(Redux)/Pinia
  - Composition API
  - Element IO / Vuetify / Buefy
  - Vue element admin
    - Ag Grid
- React
  - Same as Vue
  - React specifics



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# Extra

- CSS Flexbox / Grid
- Three.js
- Angular
- Rxjs
- Webpack
- Progressive Web Apps (PWAs)
- Template engines: Pug, Handlebars, Ejs
- GraphQL ProtoBuf
- Server-Side Rendering (SSR) and Static Site Generation (SSG)
  - Nuxtjs
  - Nextjs

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# Project

- Booking system
  - Booking form
  - List of bookings
  - Email via template engine
  - Analytics
- E commerce website
  - List of products
  - Cart
  - Checkout
  - Dashboard
- Portfolio Website:
  - Create a personal portfolio website showcasing their skills, projects, and resume.
  - Implement smooth animations and transitions to enhance the user experience.
  - Integrate a contact form for potential employers or clients to reach out.
- Chat Application:
  - Build a real-time chat application with features like private messaging and group chats.
  - Implement user authentication and the ability to share images or files.
- Weather App:
  - Utilize a weather API to fetch and display real-time weather information.
  - Implement features like searching for weather by location and displaying a forecast.



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# Frontend & Backend

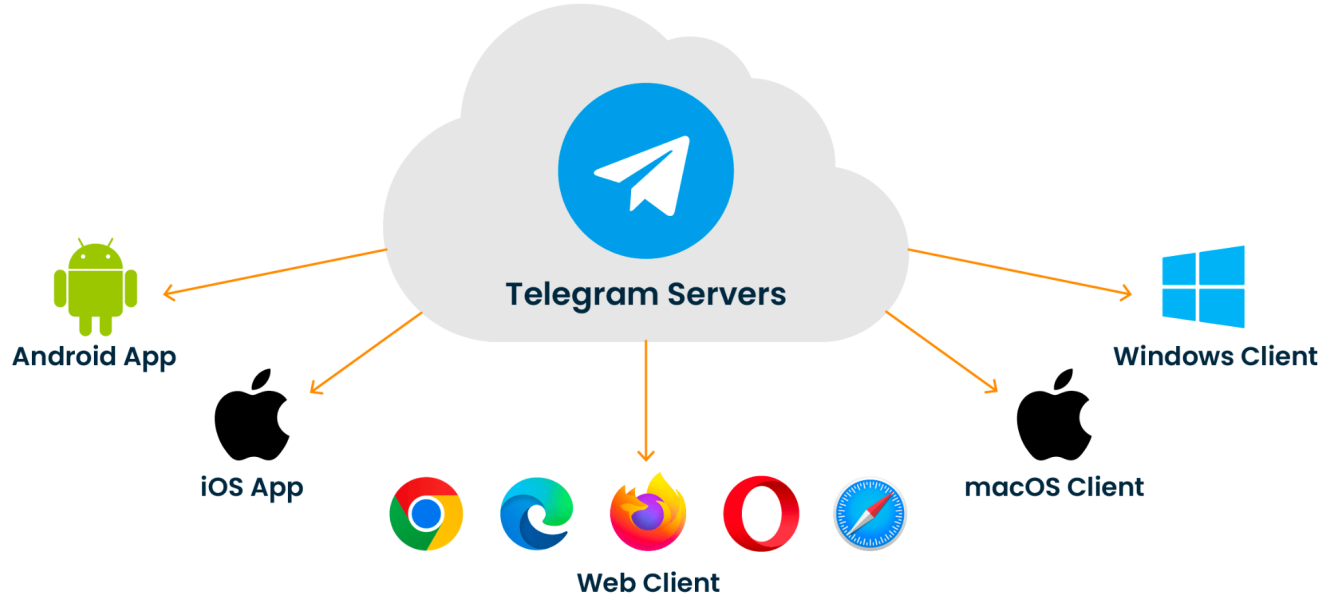
- In software engineering, the terms frontend and backend refer to the separation of concerns between the **presentation layer (frontend)**, and the data access layer (backend) of a piece of software
- A rule of thumb is that the **client-side** (or "**frontend**") is any component manipulated by the user. The server-side (or "backend") code usually resides on the server, often far removed physically from the user.

# Frontend & Backend

And this is how the magic happens...



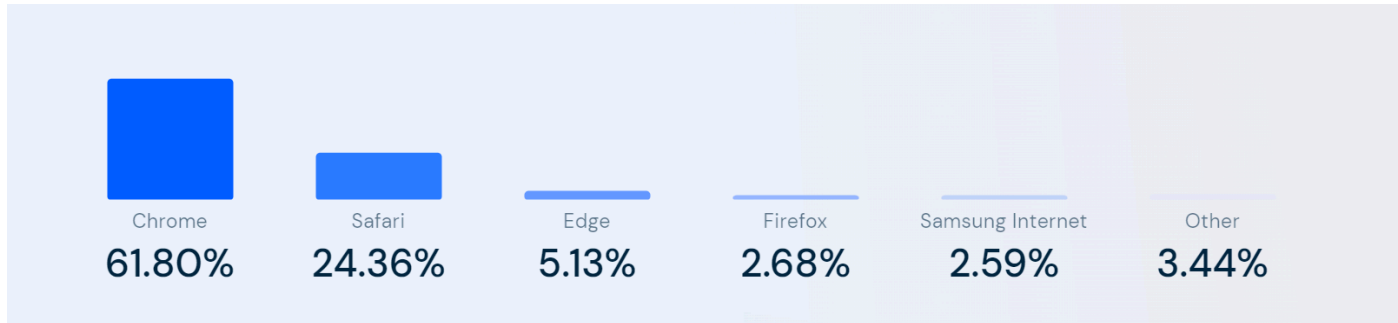
# Frontend & Backend



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# Frontend web development

- **Front-end web development** is the development of the [graphical user interface](#) of a website through the use of [HTML](#), [CSS](#), and [JavaScript](#) so users can view and interact with that website. [\[1\]](#)[\[2\]](#)[\[3\]](#)[\[4\]](#)
- Web Developer - broader term
- Frontend Developer - usually speaking about frontend web apps development
- As of January 2024, there were 5.35 billion internet users worldwide, which amounted to 66.2 percent of the global population





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# Web Site

- <https://www.artlebedev.com/web/>
- <https://www.awwwards.com/>
- <https://www.joinflowparty.com/>
- <https://www.behance.net/>
- <https://color.adobe.com/>
- <https://www.pantone.com/color-of-the-year/2024>





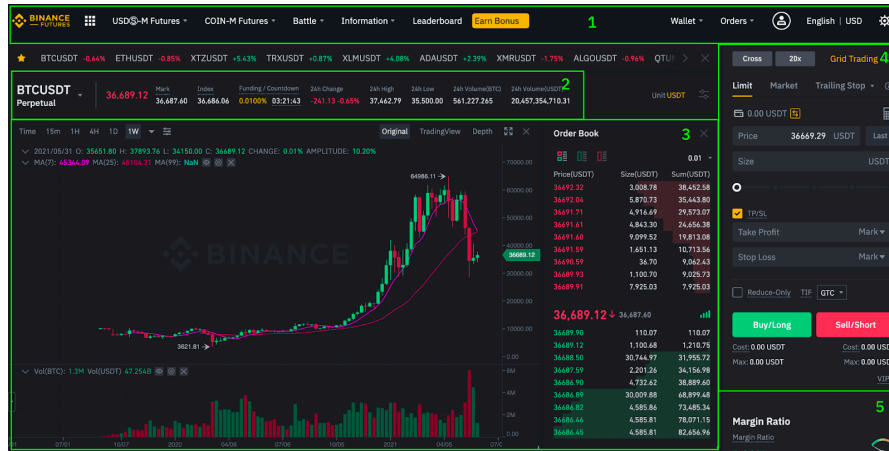
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# Web App

- <https://lichess.org/>
- <https://panjiachen.github.io/vue-element-admin/#/dashboard>
- <https://www.salesforce.com/>
- <https://www.atlassian.com/software/jira>
- <https://slack.com/>
- <https://www.binance.com/en>

# Evolution of Web apps

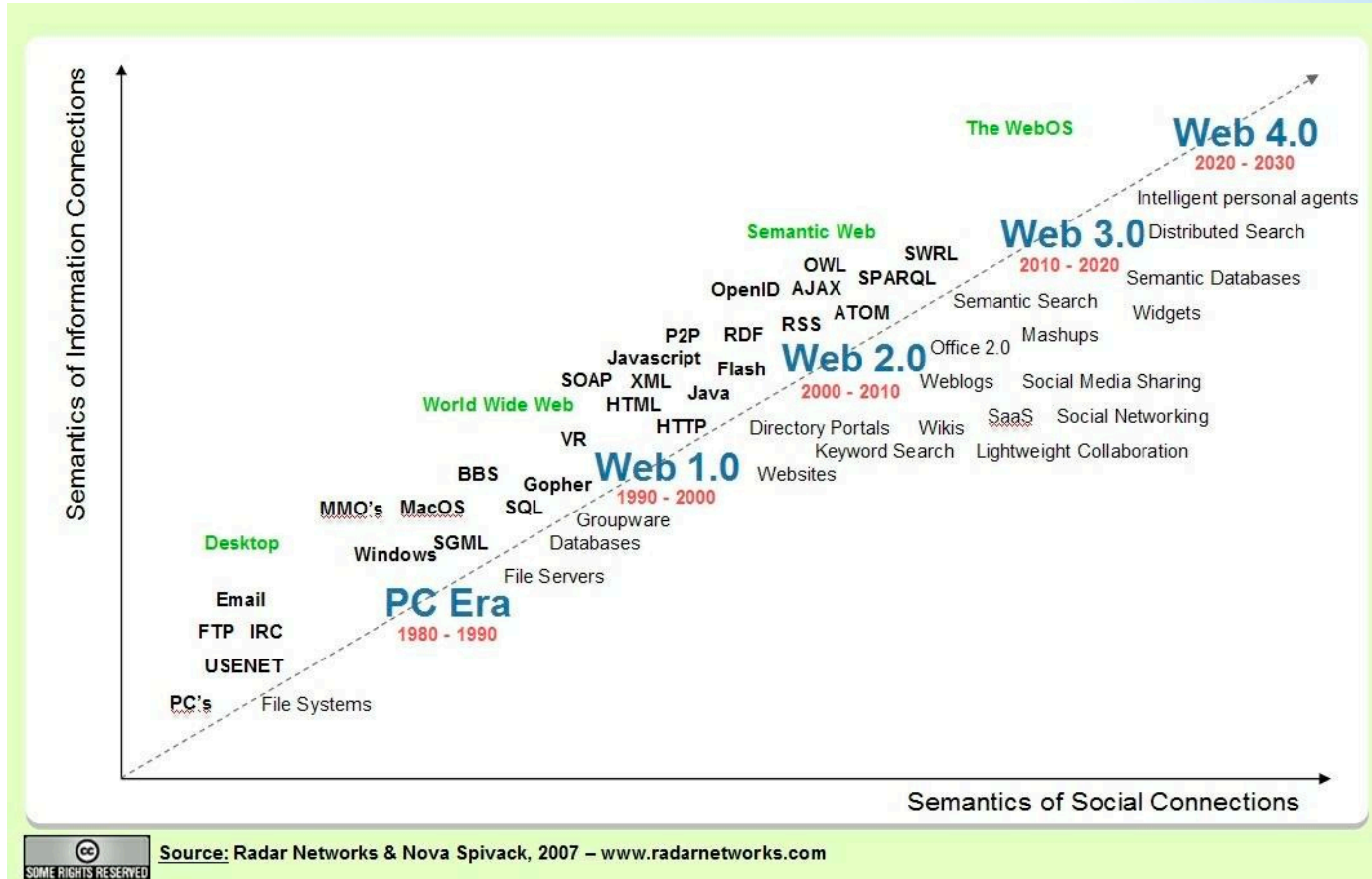




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# Evolution of Web apps



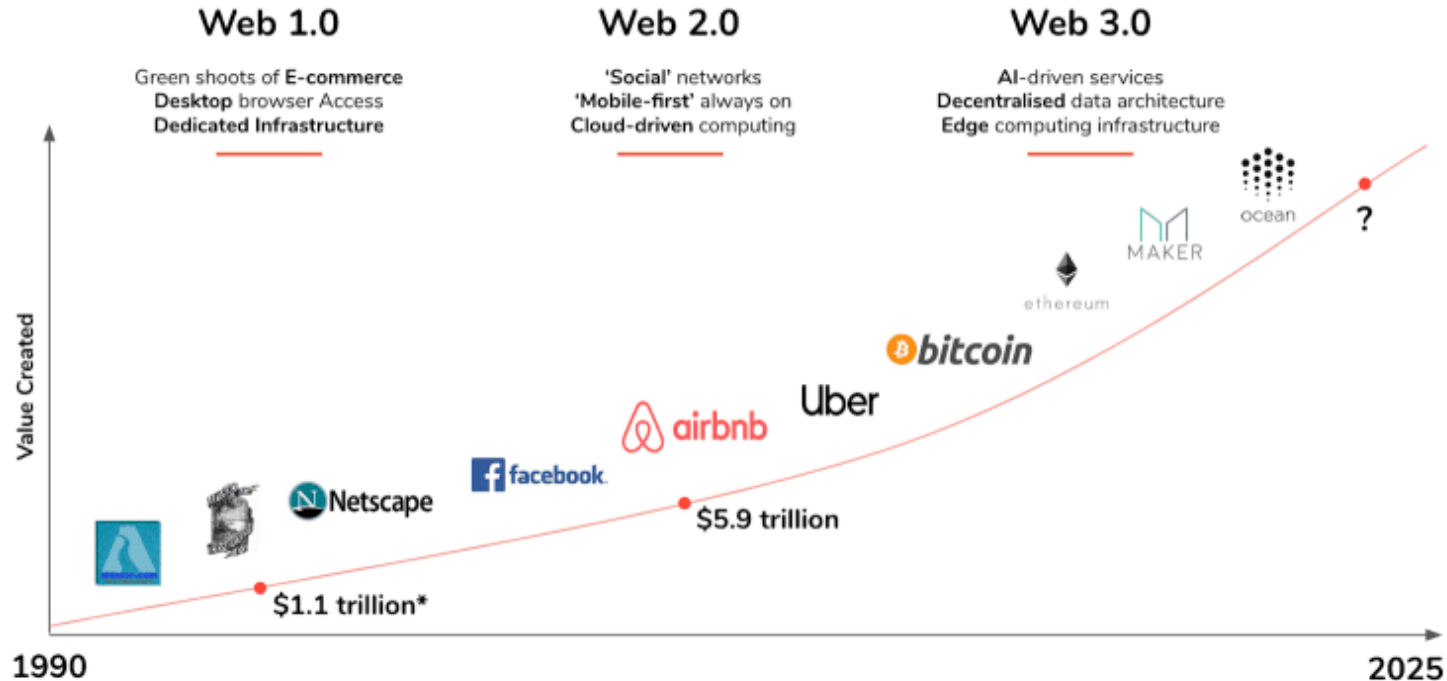


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# Evolution of Web apps

## The Evolution of the Web



\* Internet companies market cap as of 2000

# Thank you

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