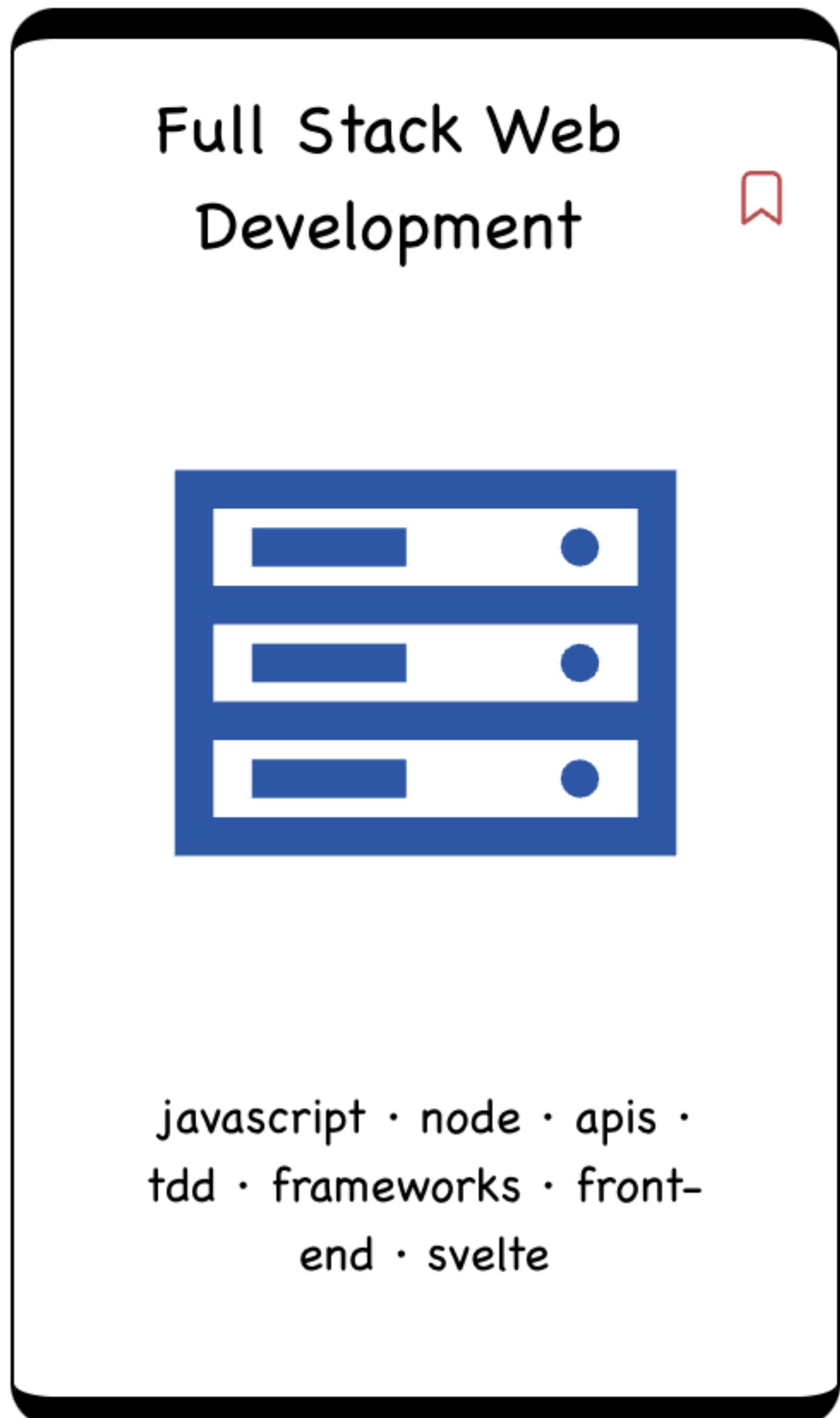


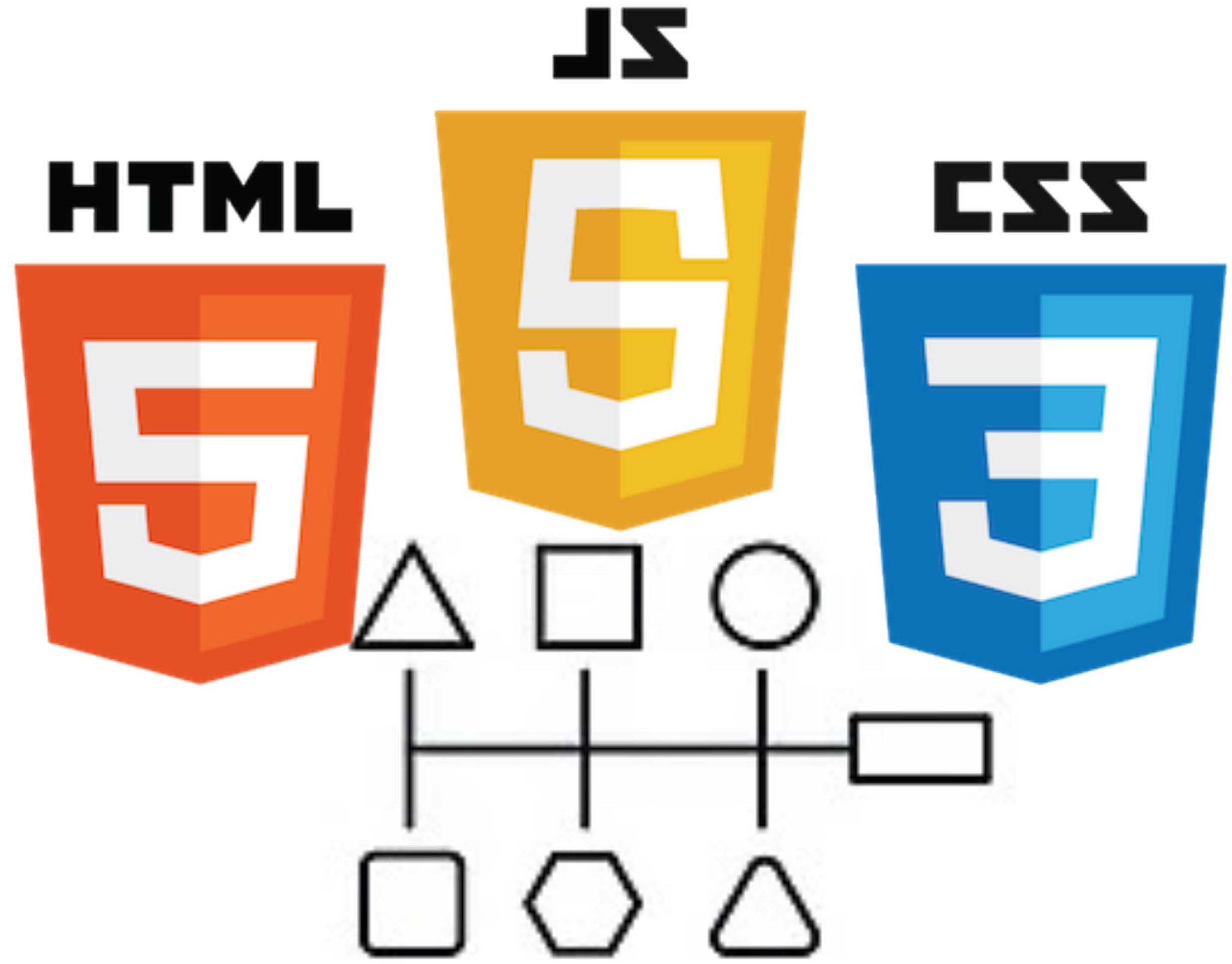
Agenda

- Prerequisites
- Schedule
- Module Overview
- Components & References



Perquisites

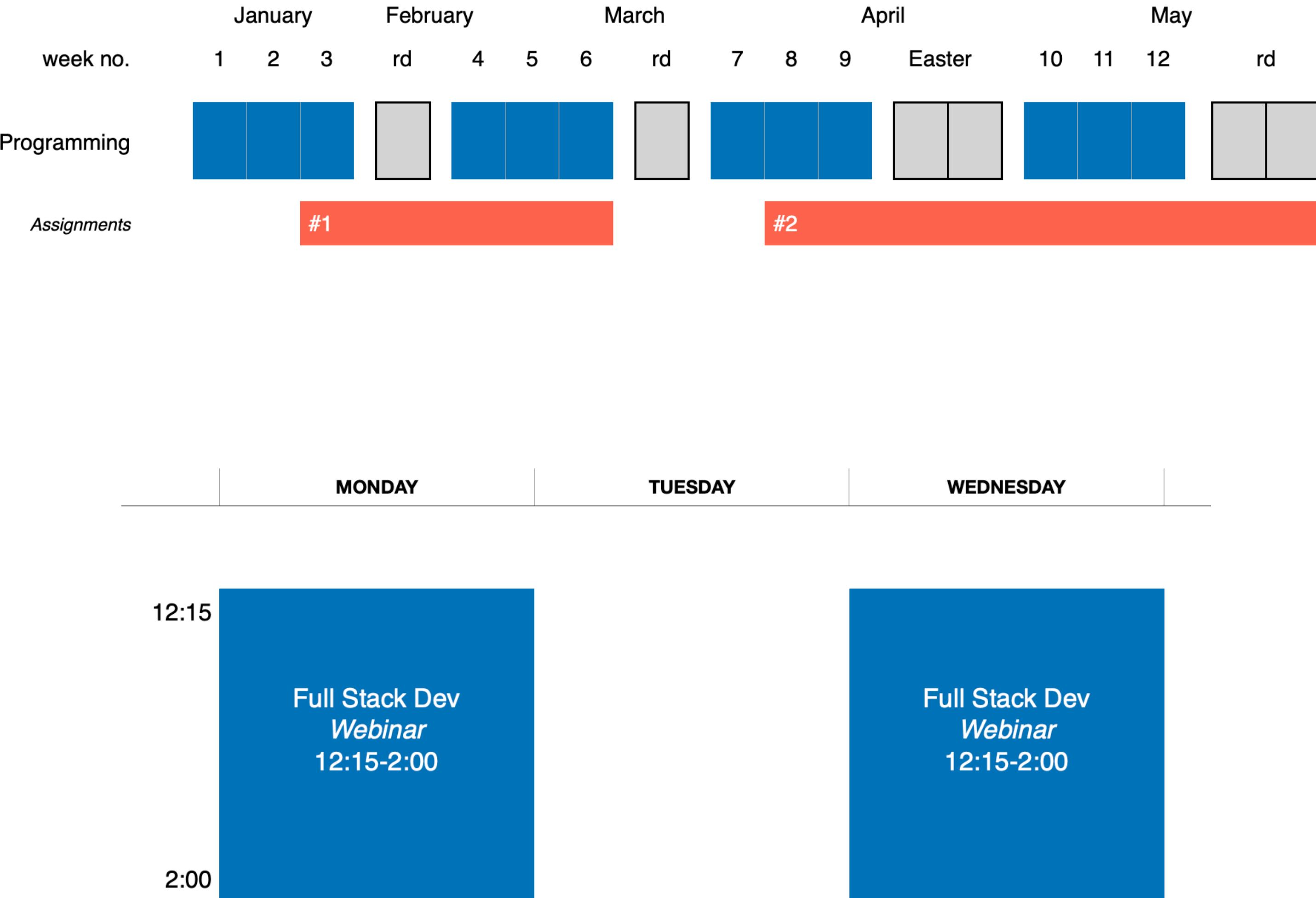
- Intermediate level skills in:
 - **HTML:** Ability to effectively structure the html content of a small to medium static site, including the use of templates
 - **CSS:** Understand the fundamentals of CSS, and be able to realise simple layouts and designs. Be comfortably using a CSS framework
 - **Javascript:** Be familiar with the building blocks of the language and be able to compose realise algorithms to accomplish simple tasks.

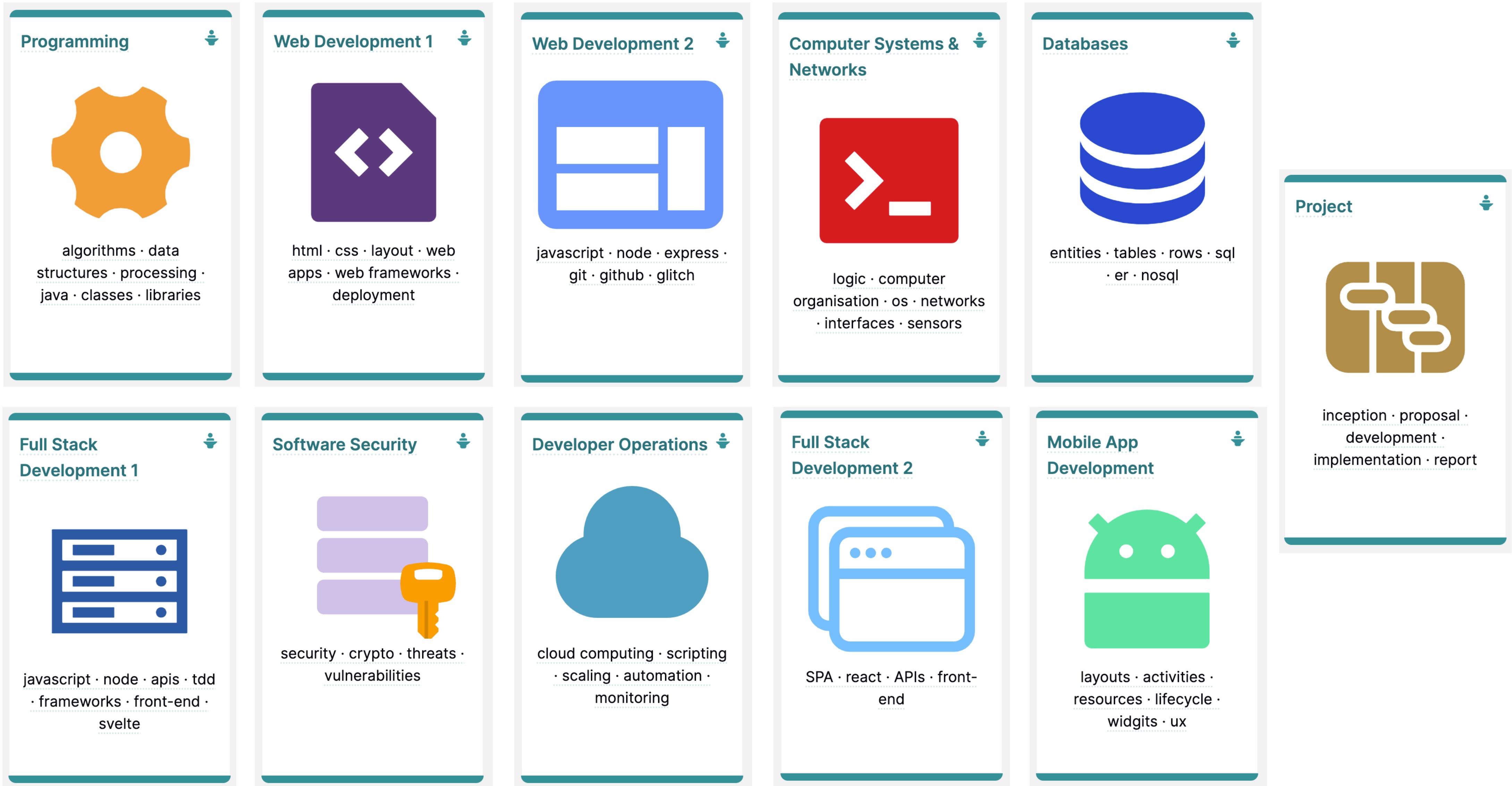


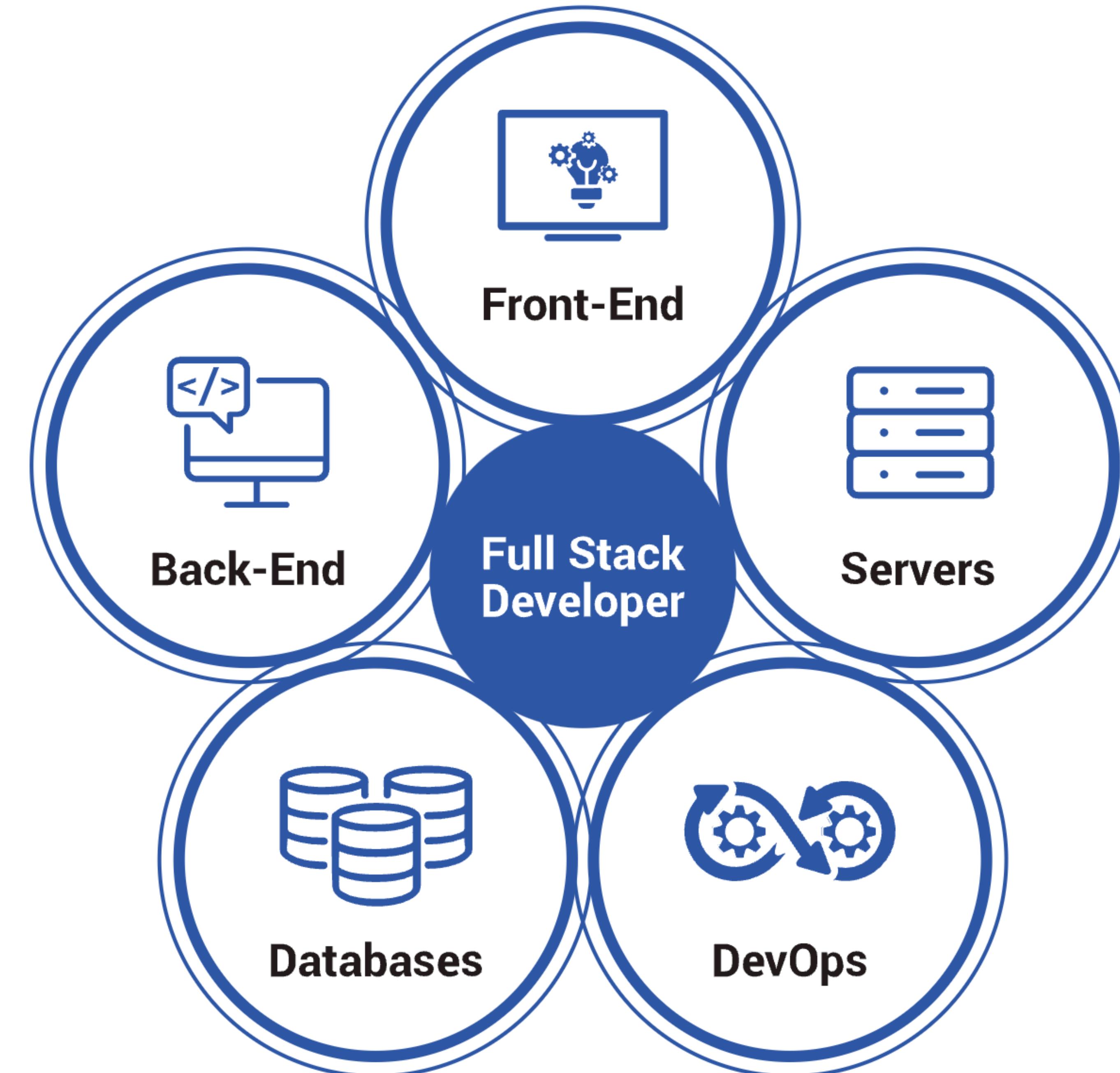
- **Web Applications:** Have experience building simple web applications, including the the fundamentals of templating, Model View Controller patterns, sessions & the basics of application deployment

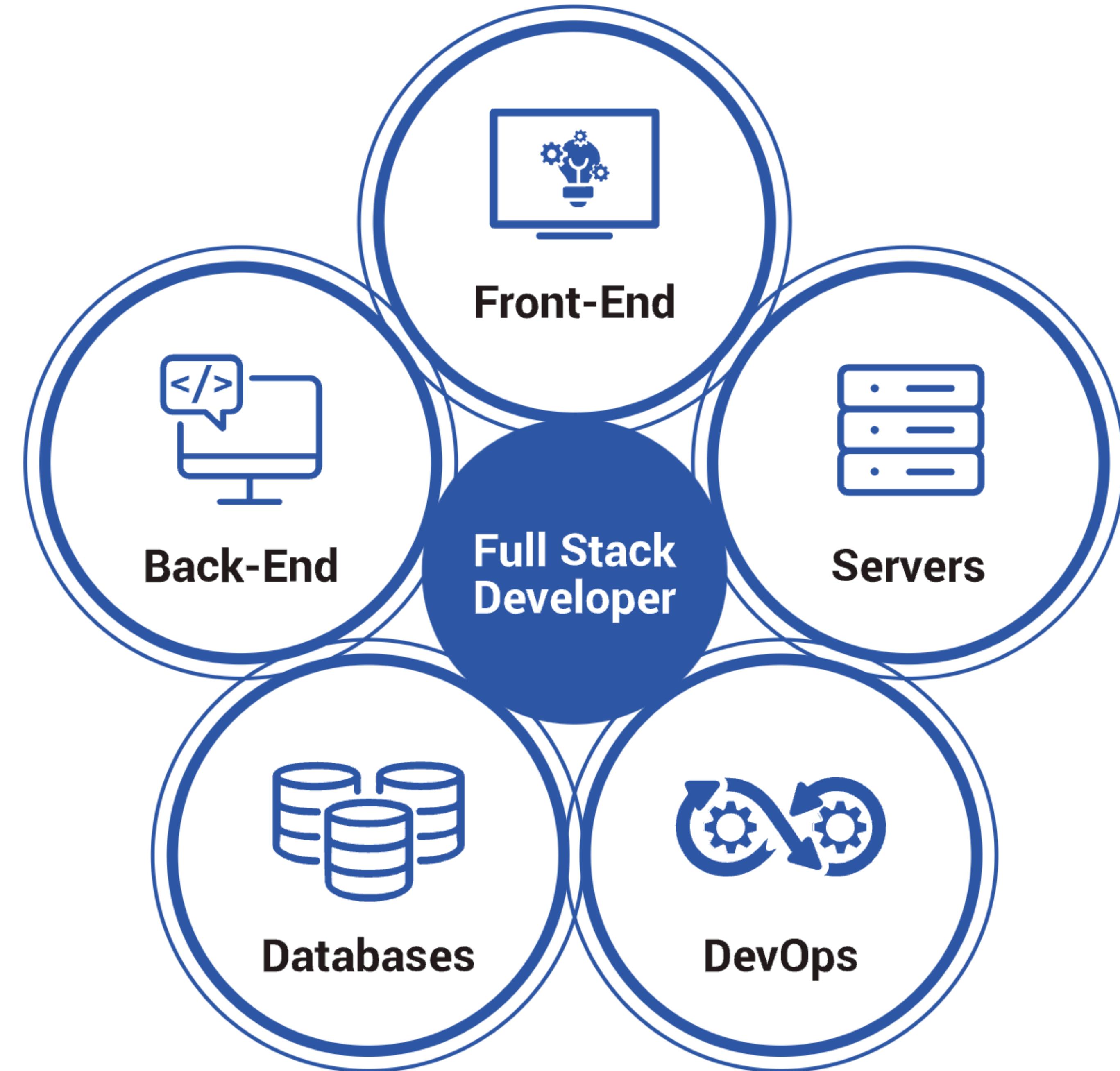
Schedule & Assessment

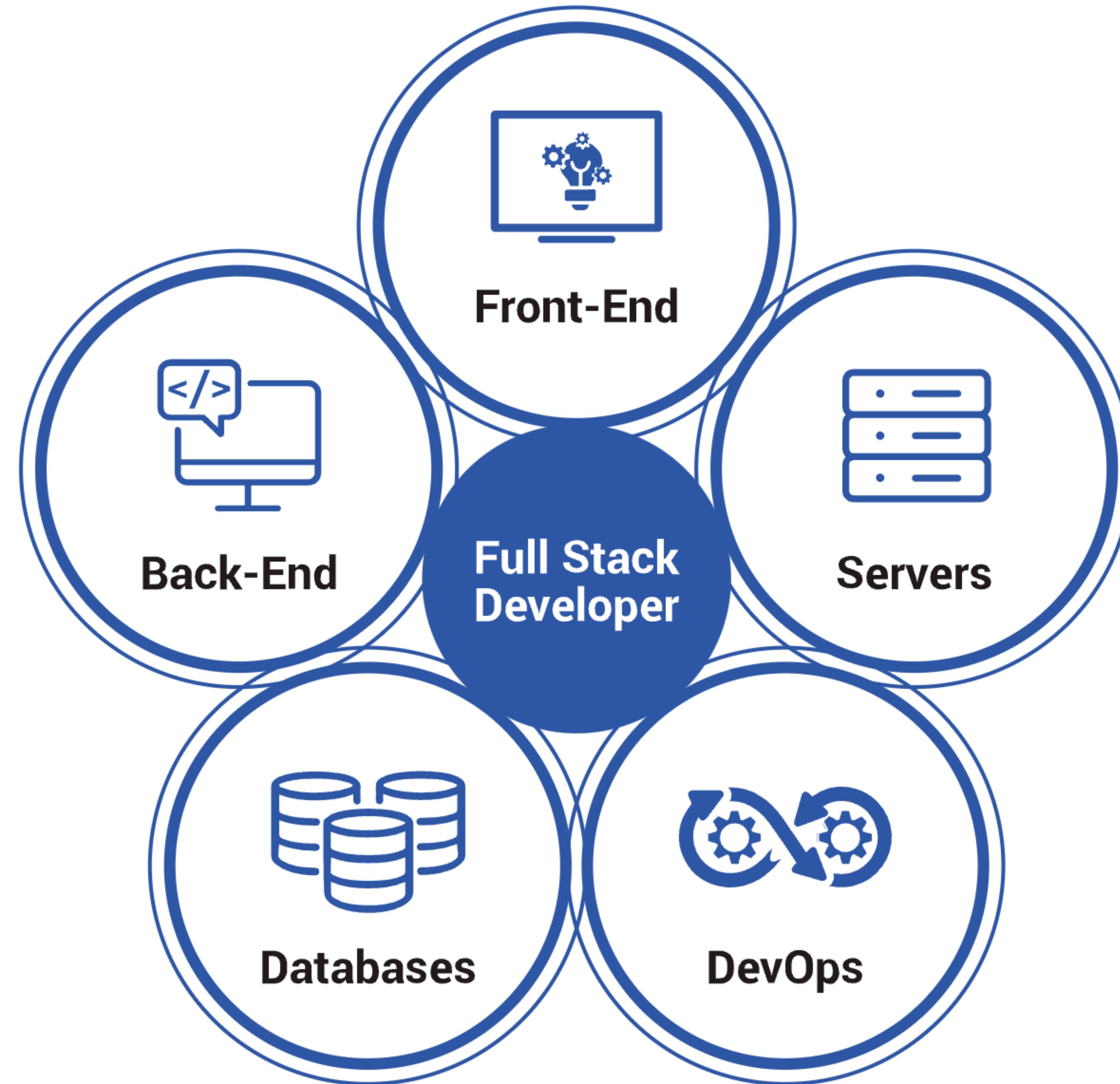
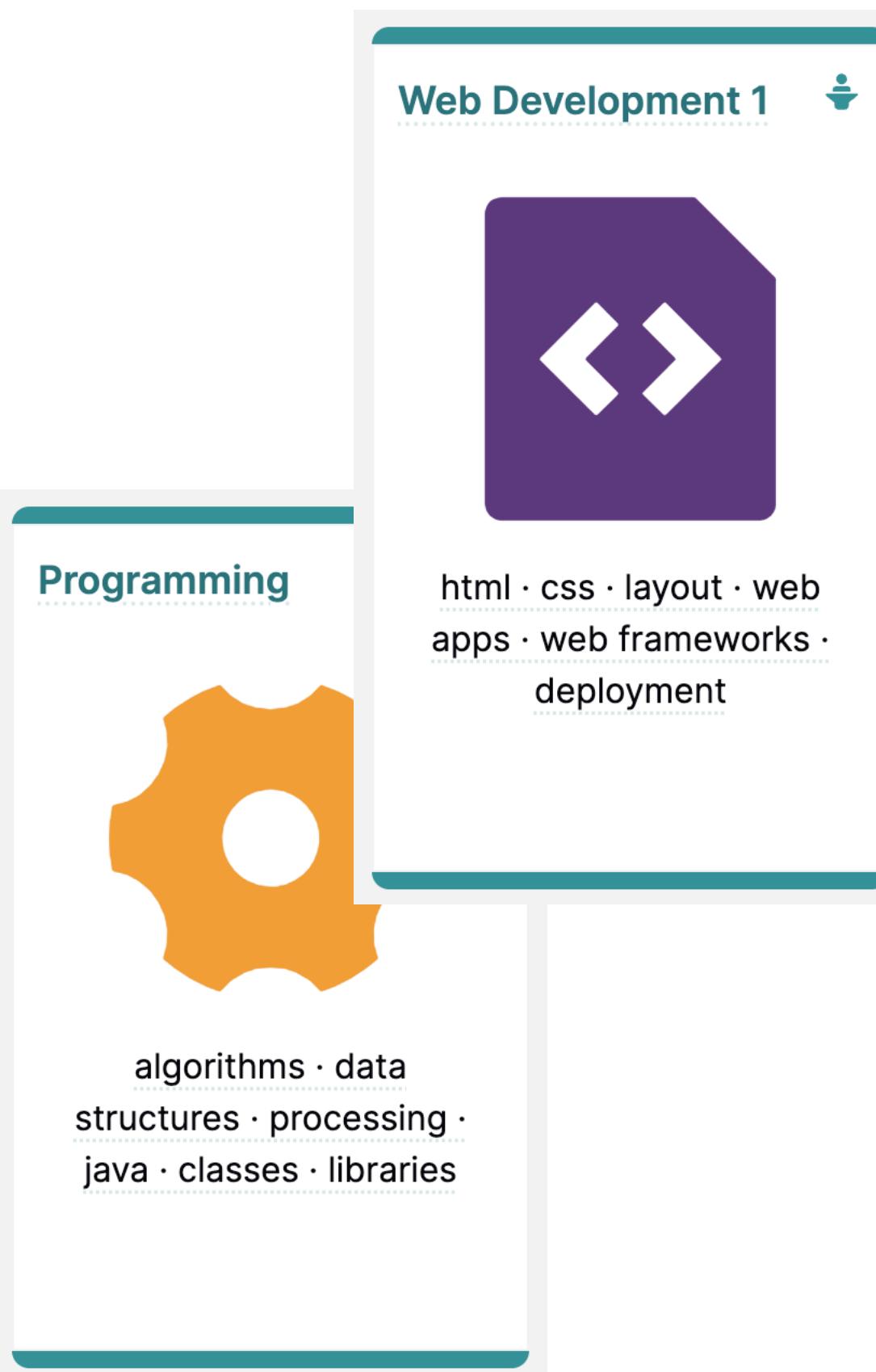
	S	M	T	W	T	F	S
Week	1	2	3	4	5	6	7
January	8	9	10	11	12	13	14
1	15	16	17	18	19	20	21
2	22	23	24	25	26	27	28
3	29	30	31	1	2	3	4
February	reading	5	6	7	8	9	10
	4	12	13	14	15	16	17
	5	19	20	21	22	23	24
	6	26	27	28	1	2	3
March	reading	5	6	7	8	9	10
	7	12	13	14	15	16	17
	8	19	20	21	22	23	24
	9	26	27	28	28	30	31
April	Easter 1	2	3	4	5	6	7
	Easter 2	9	10	11	12	13	14
	10	16	17	18	19	20	21
	11	23	24	25	26	27	28
May	12	30	1	2	3	4	5
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20

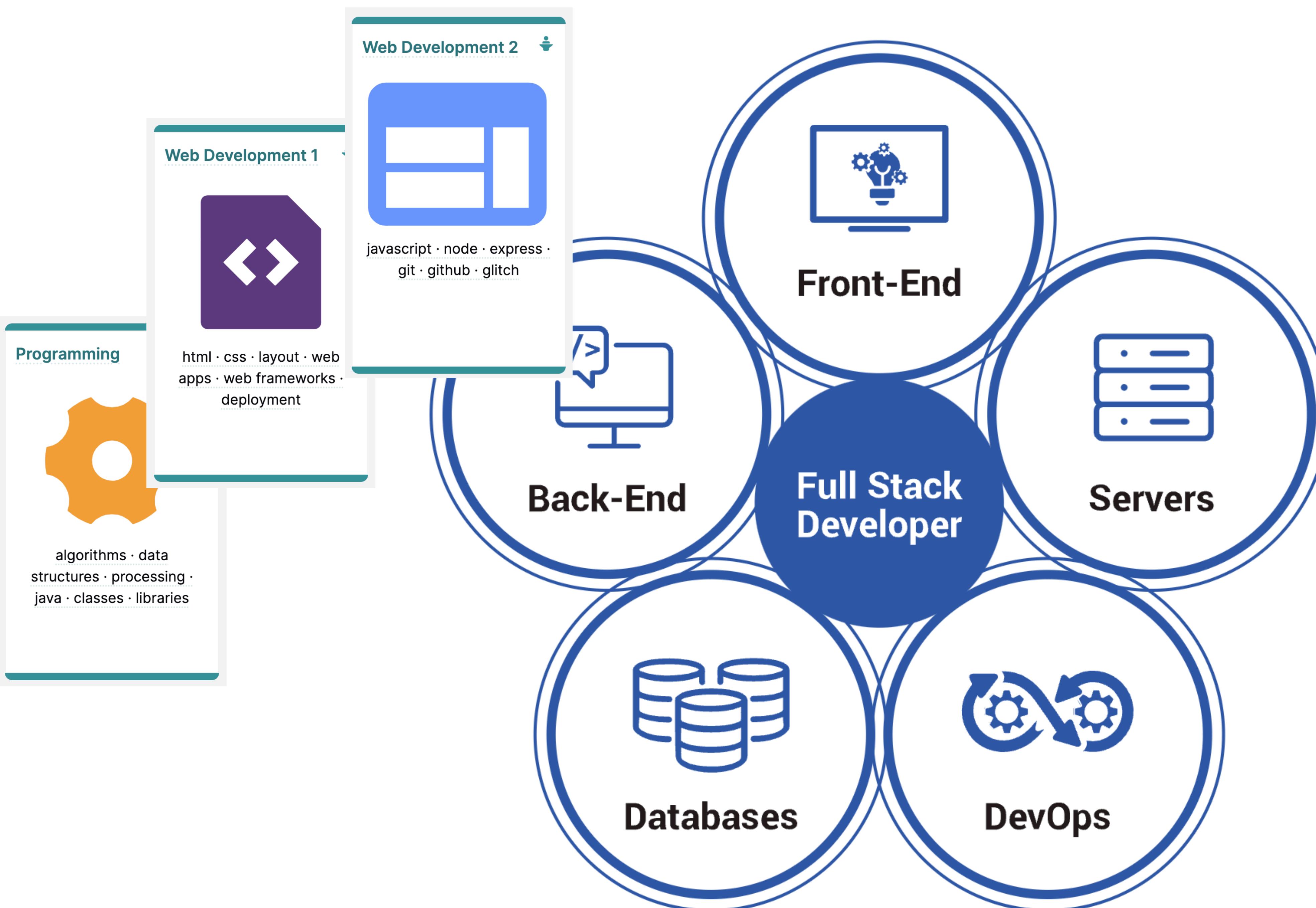


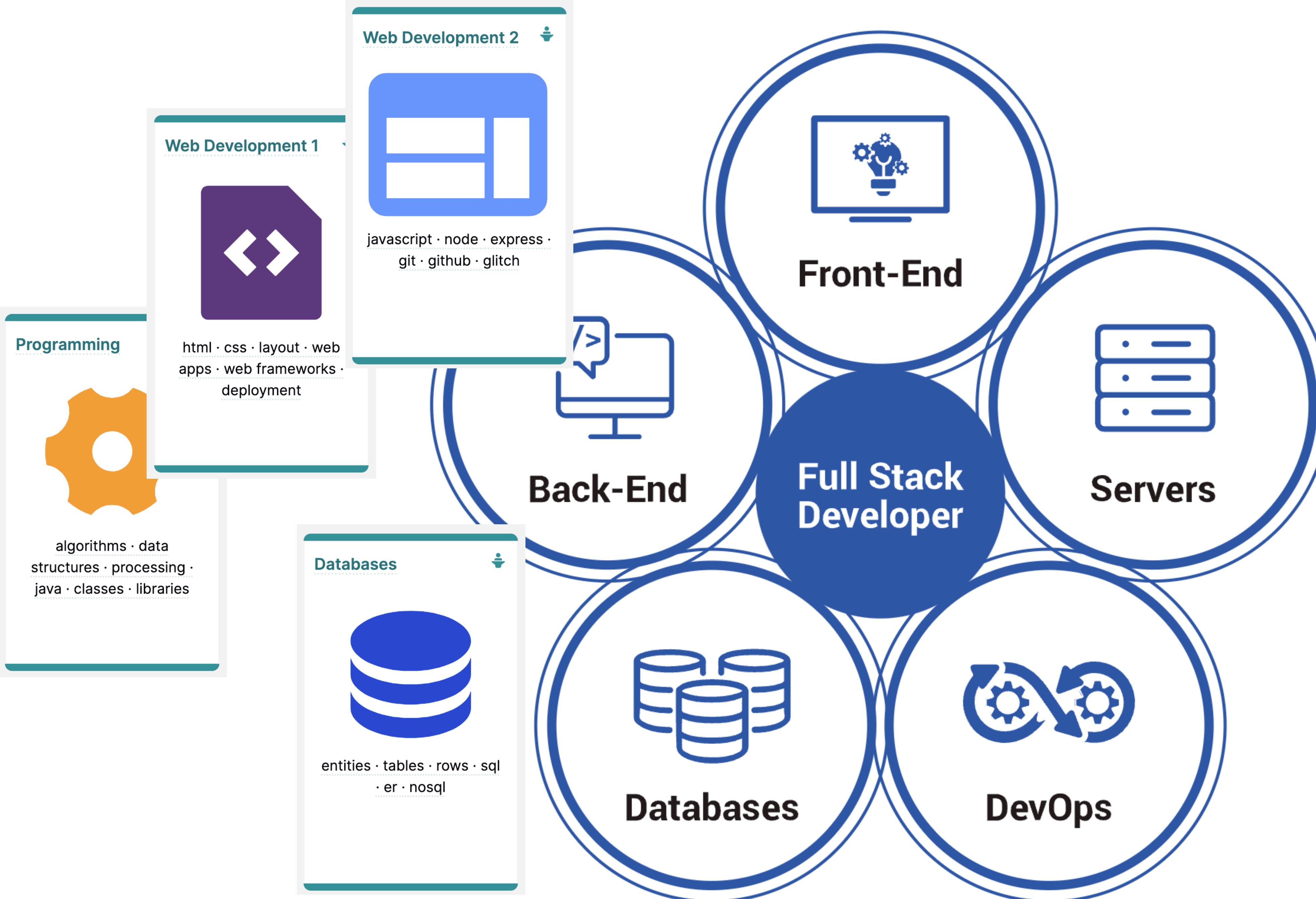


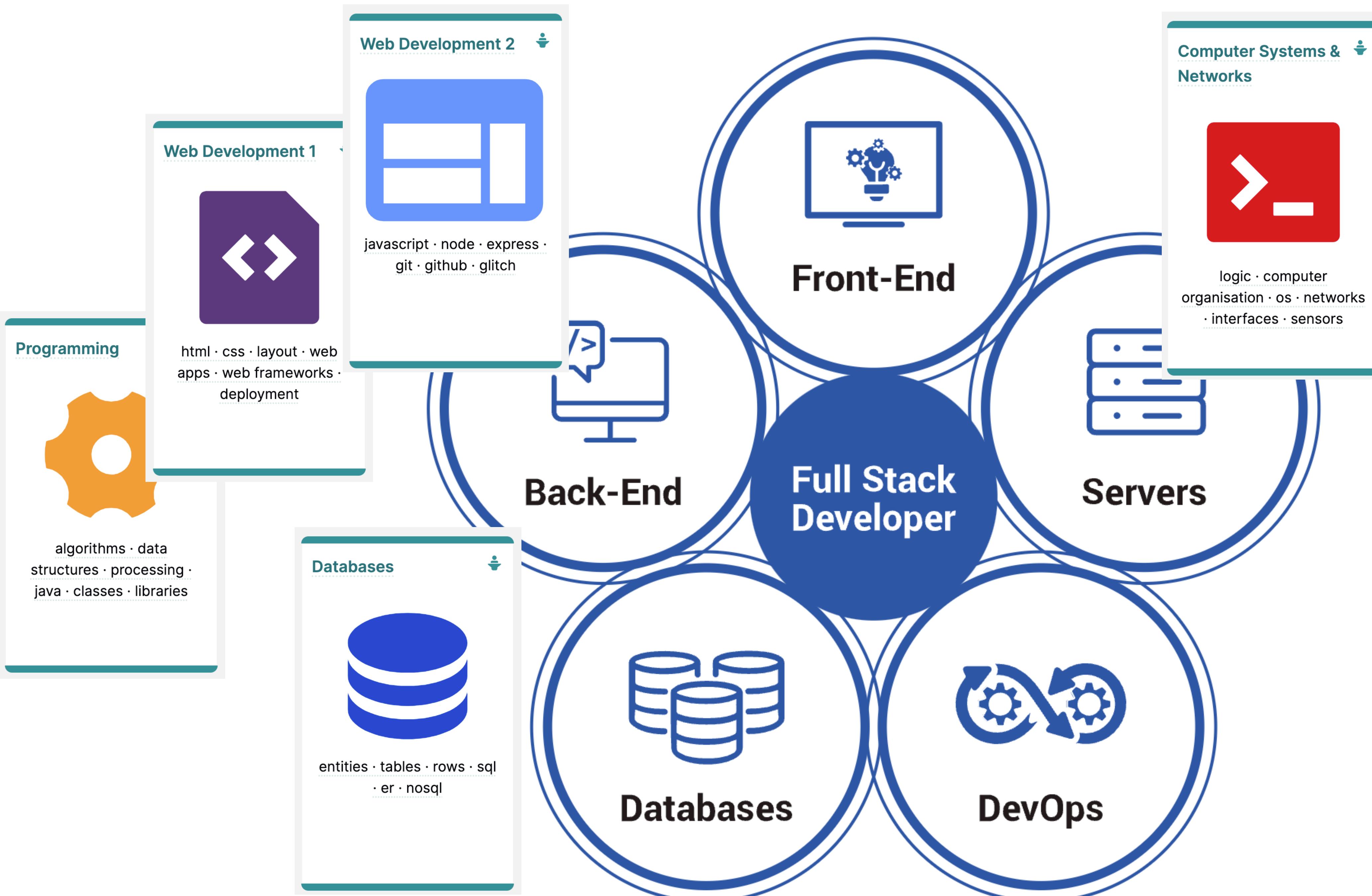


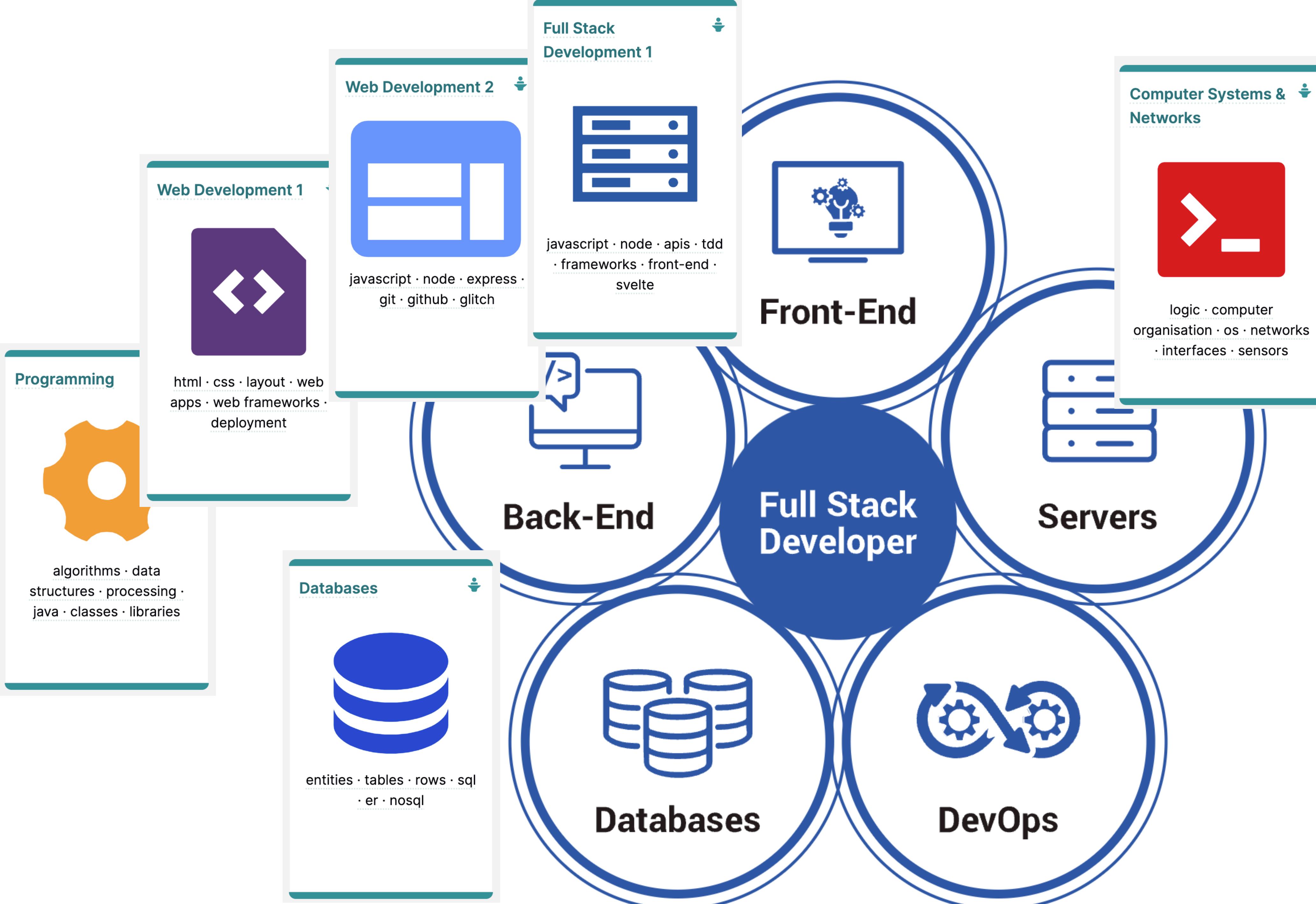


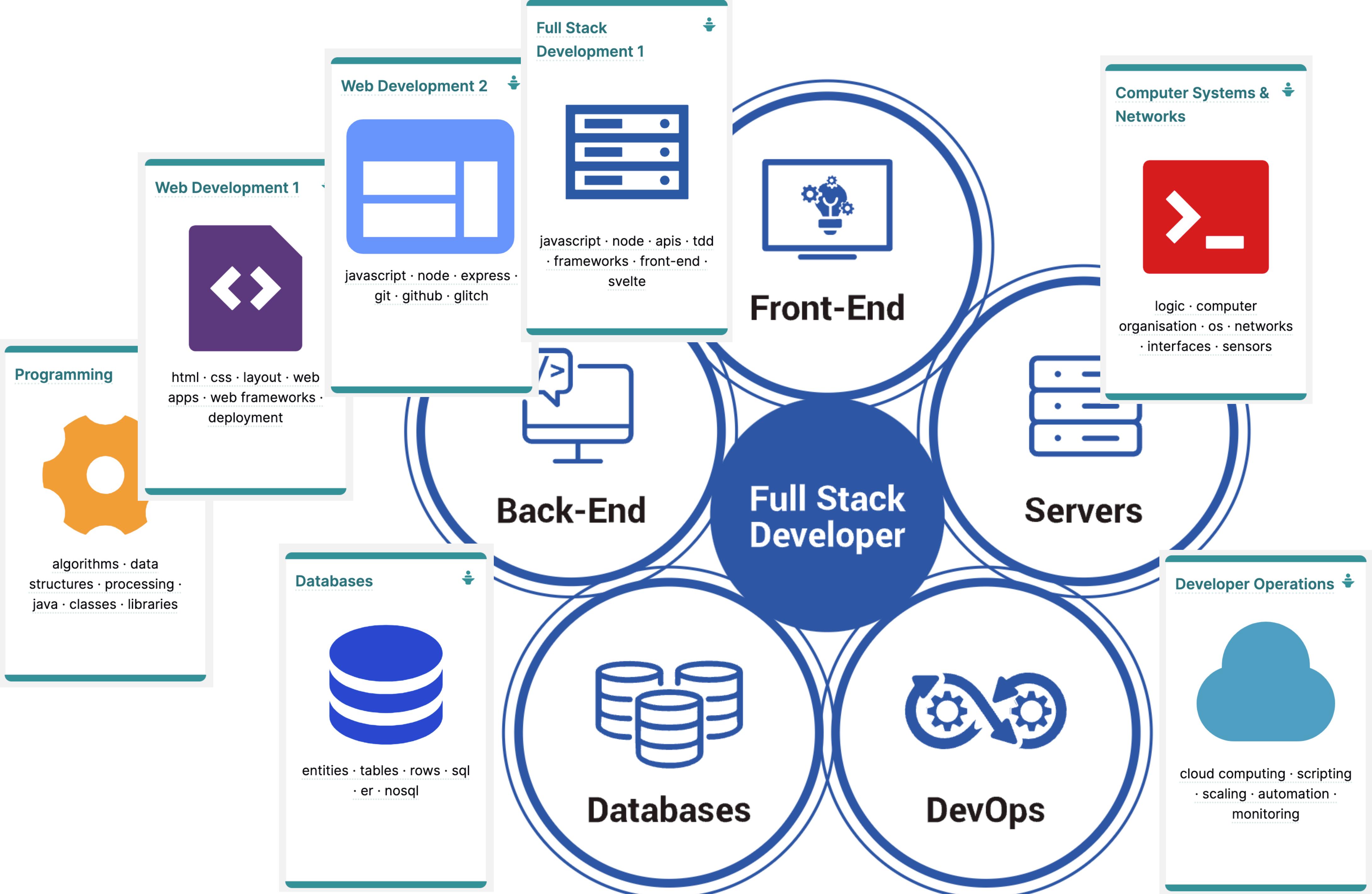


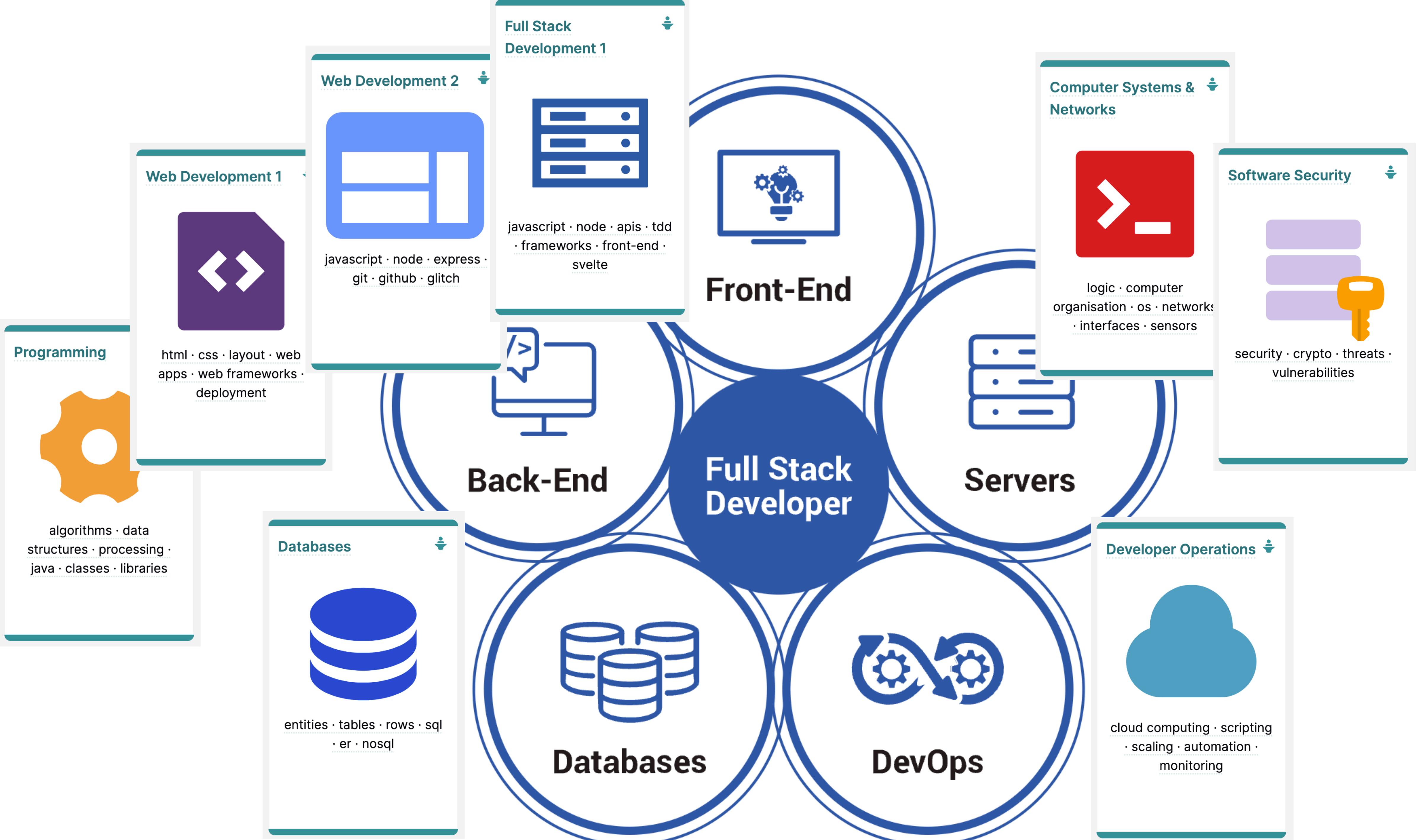


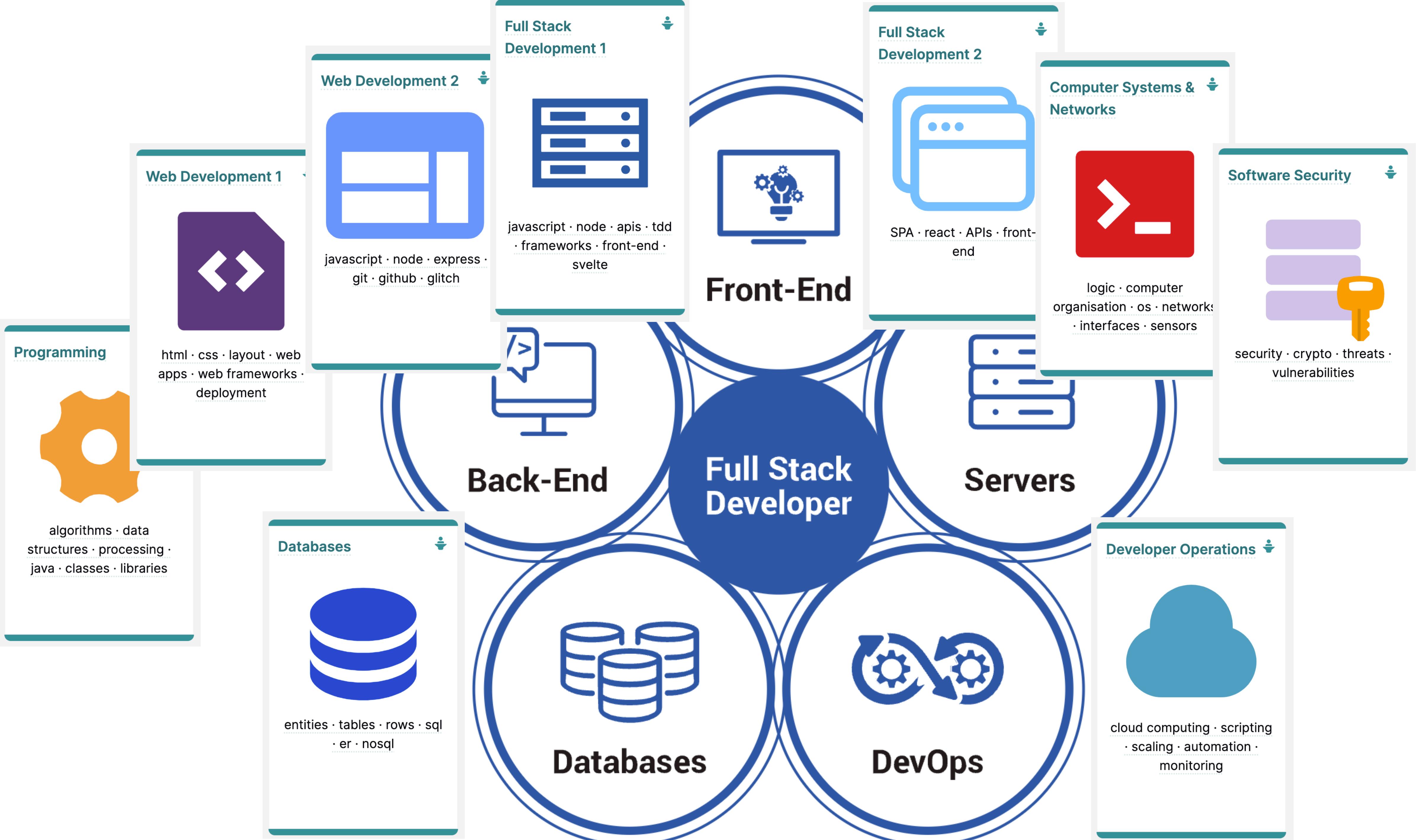


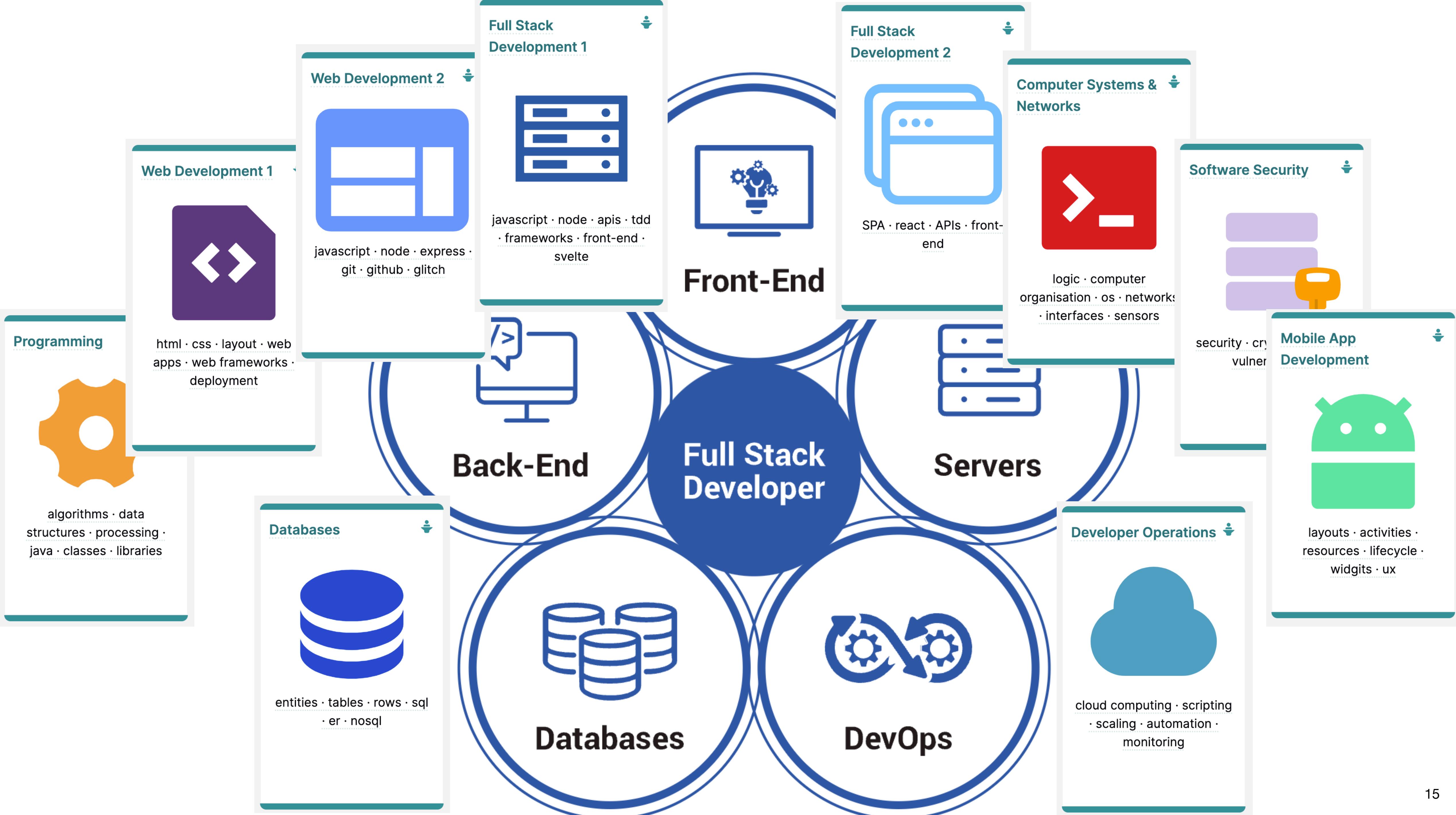


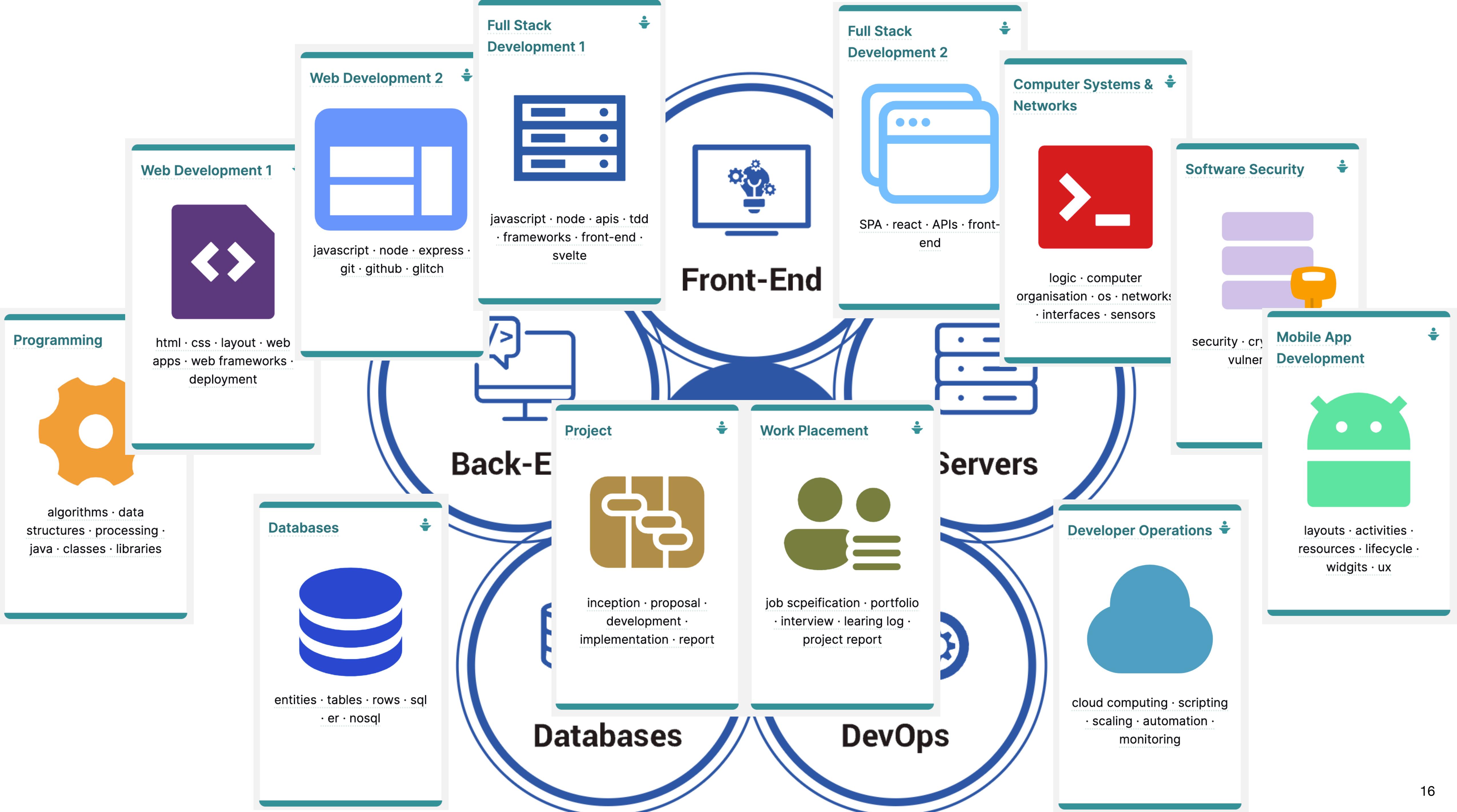


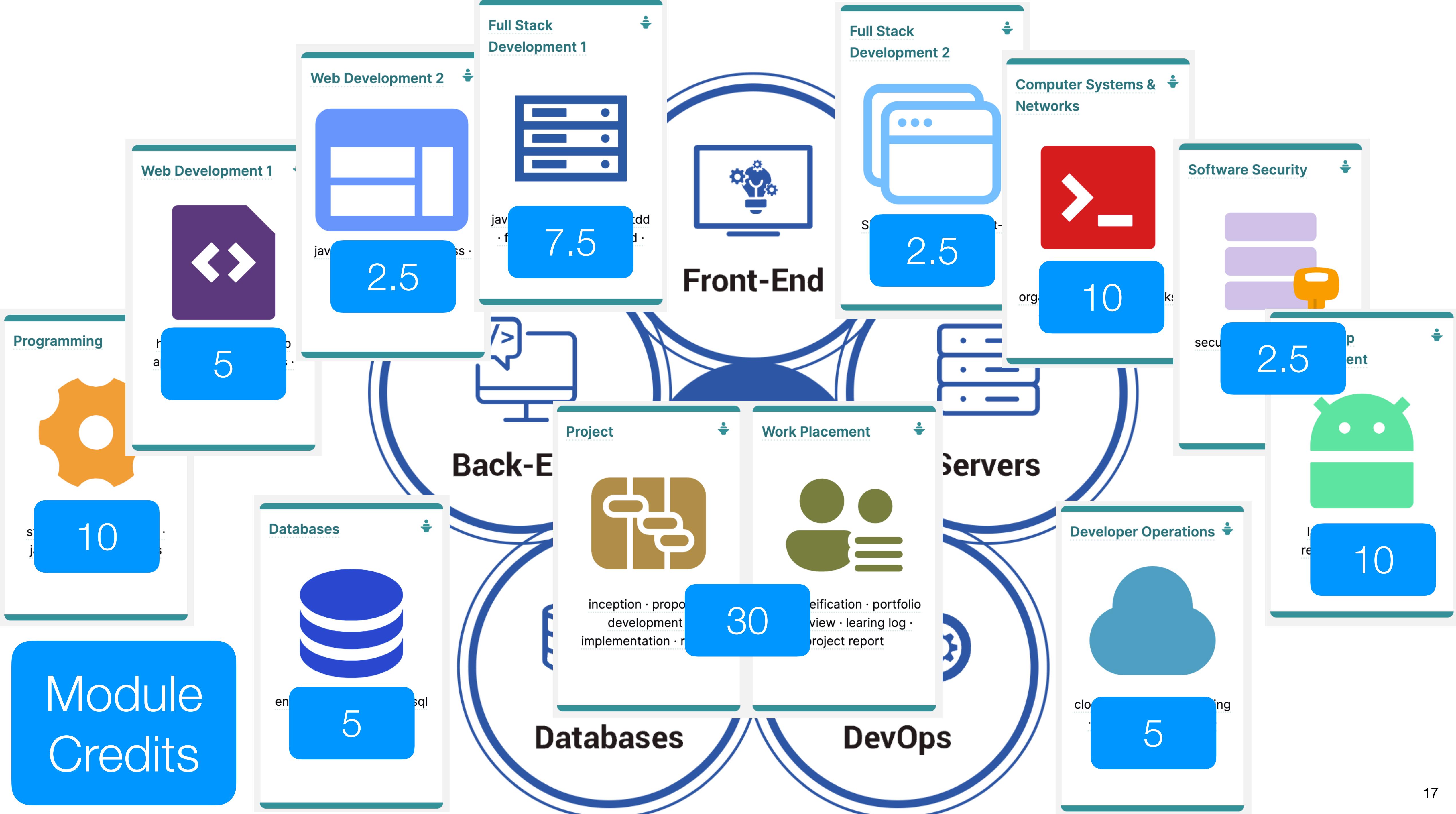










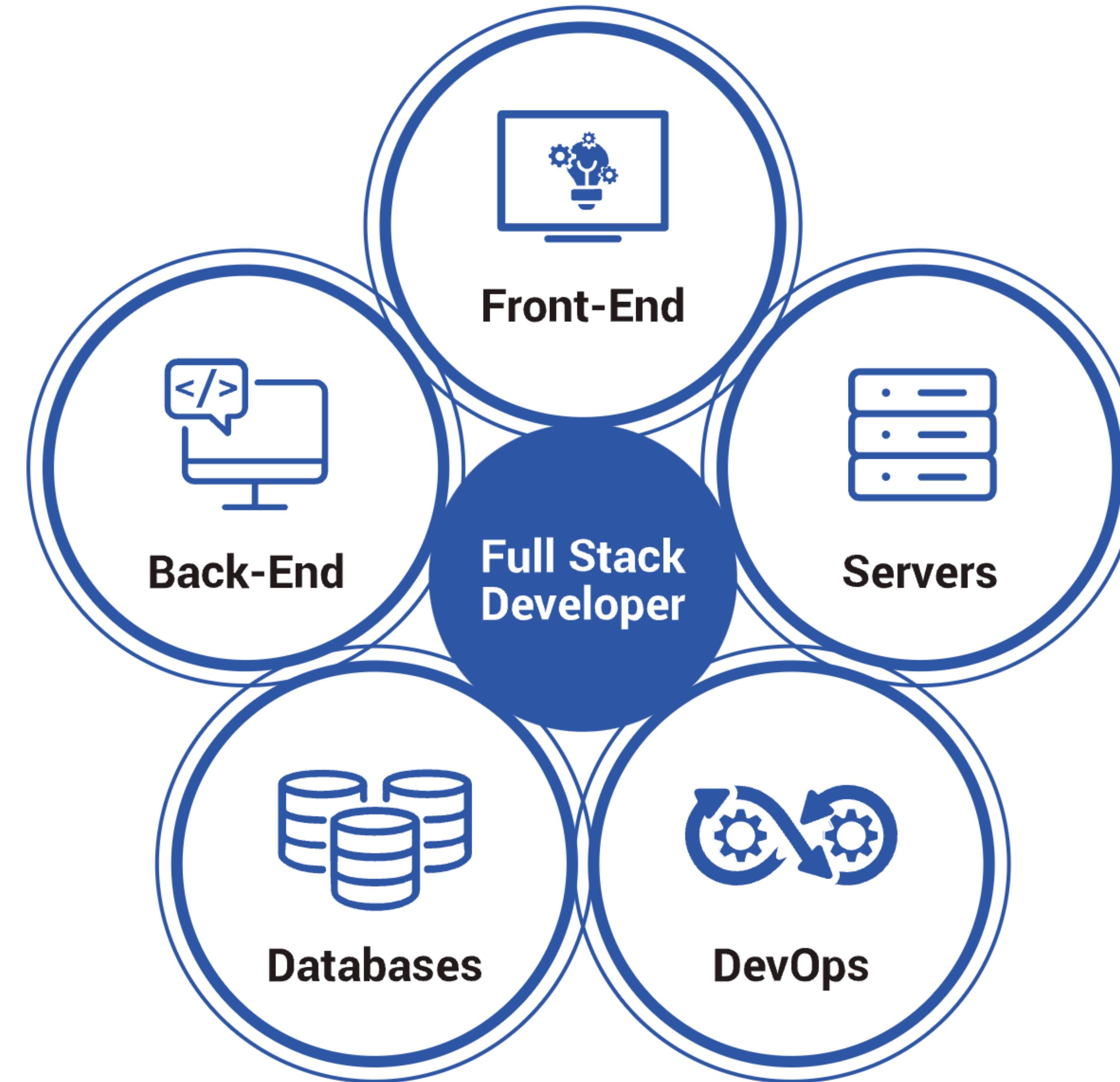


Back End Web Development

Test Driven Development

Application Programmer Interfaces

Front End Web Development



Back End Web
Development

Test Driven
Development

Application
Programmer
Interfaces

Front End Web
Development

Core
Concepts

The image shows a horizontal sequence of five cards, each with a title, a small icon, and a brief description. From left to right:

- 01: Node**: Features the Node.js logo (the word "node" in black with a green hexagon containing "JS" below it). Description: "The fundamentals of node. A first node application."
- 02: Hapi.js**: Features the Hapi.js logo (a grey alien head with orange antennae next to the word "hapi"). Description: "The Hapi application Framework"
- 03: Joi**: Features the Joi logo (a stylized "joi" wordmark with a small illustration of a person's head). Description: "Validation with Joi"
- 04: TDD**: Features a circular diagram with four segments: red (top), green (right), blue (bottom), and light blue (left). The word "TDD" is in the center. Segments are labeled: "Write a failing test" (red), "Refactor" (blue), "Make the test pass" (green), and "Repeat" (light blue). Description: "Test Driven Development"
- 05: Models**: Features a blue folder icon with three blue cubes inside. Description: "Incorporate Mongo Models"

Back End Web Development

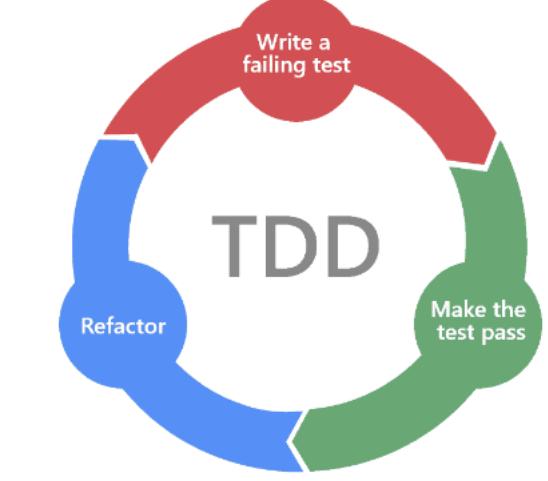
Test Driven Development

Application Programmer Interfaces

Front End Web Development

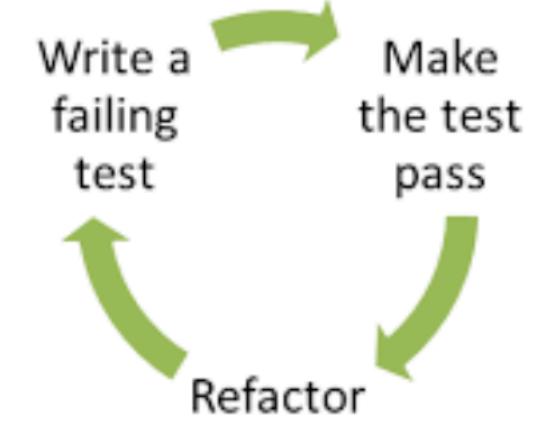
Core
Concepts
20

04: TDD



Test Driven Development

TDD Introduction



The fundamentals of Test Driven Development

Right BICEP



Guidelines for Tests · Right · Boundary · Inverse · Cross-check · Errors ...

C.O.R.R.E.C.T



More TDD guidelines · Conformance · Ordering · Range · Reference ...

FIRST Principles



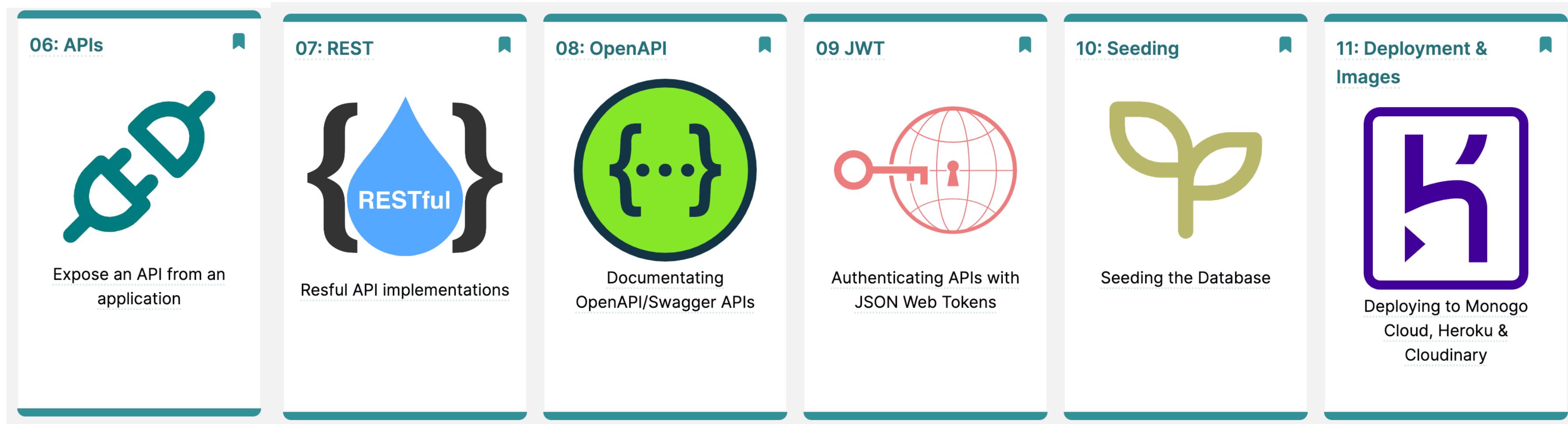
More TDD Guidelines: Fast · Isolate · Repeatable · Self-Validating · Timely

Back End Web Development

Test Driven Development

Application Programmer Interfaces

Front End Web Development



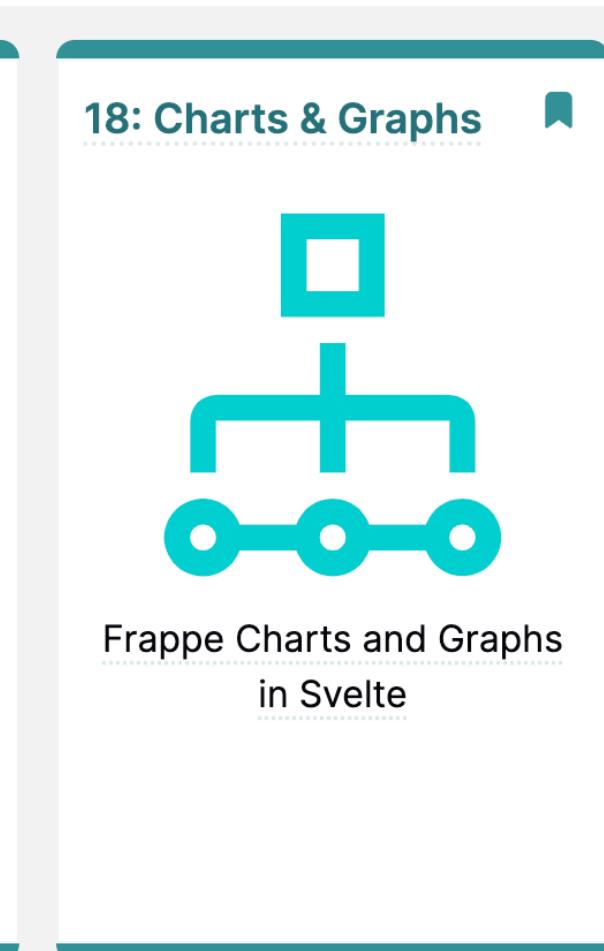
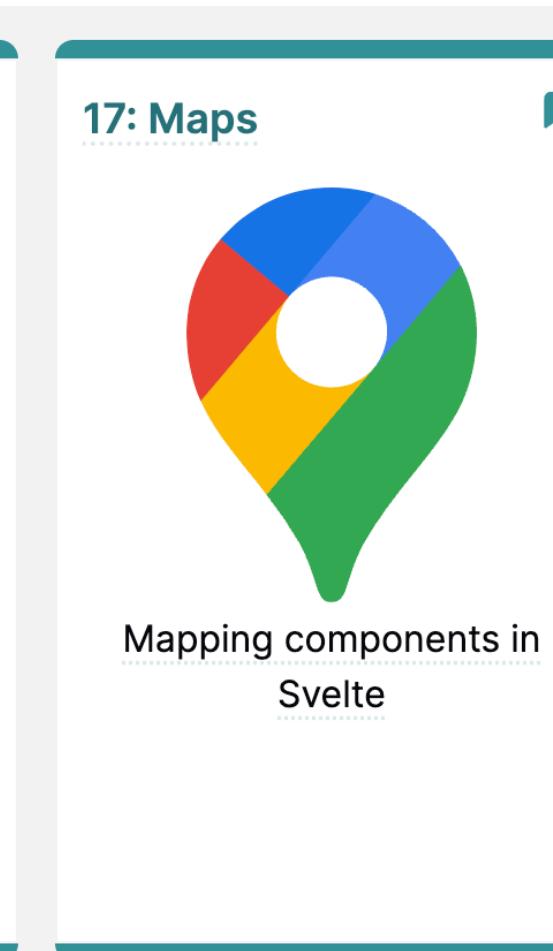
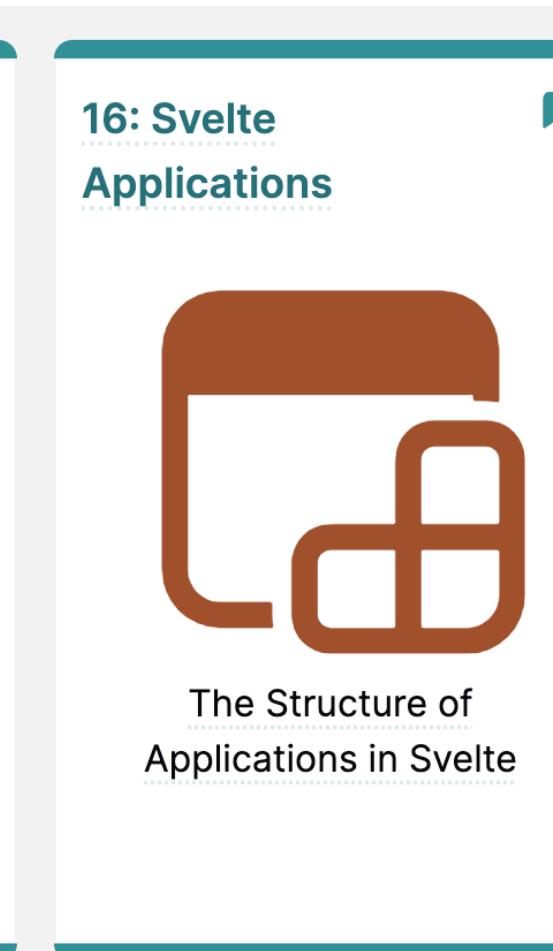
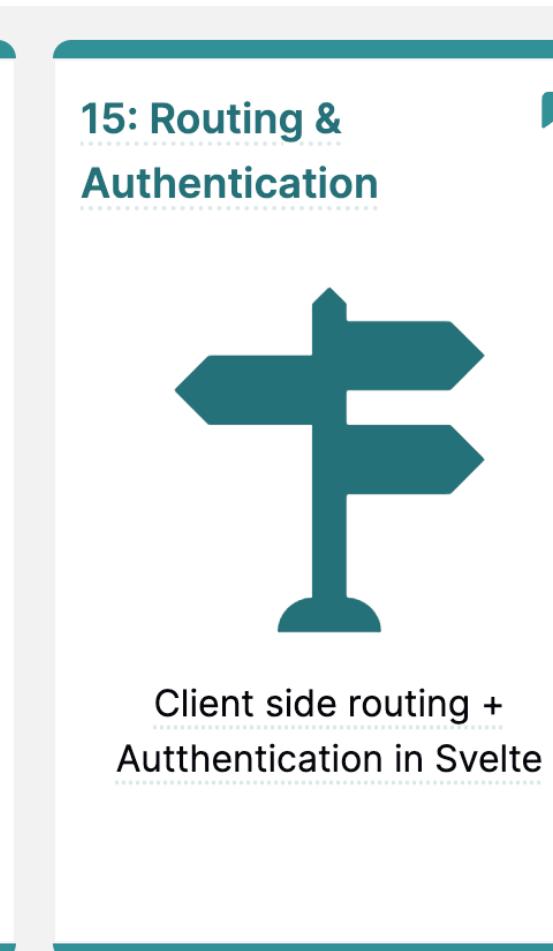
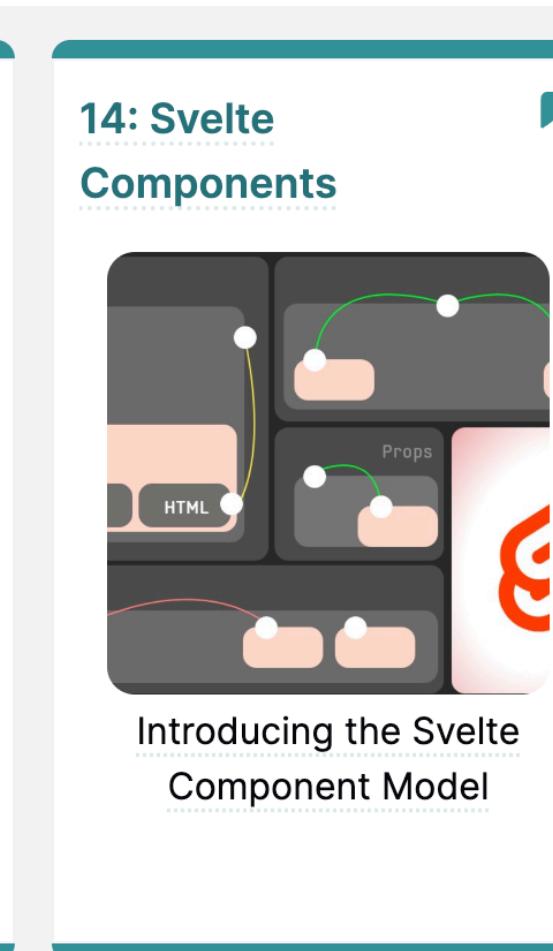
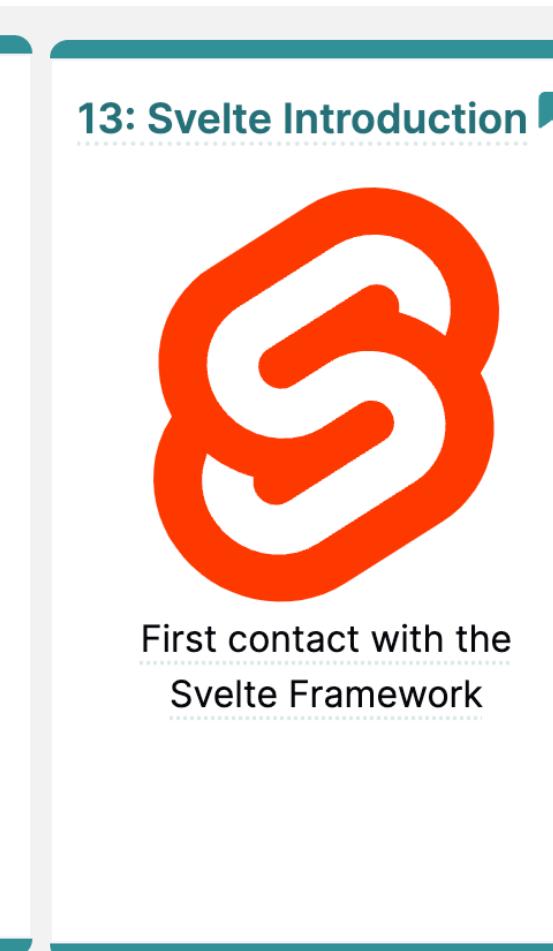
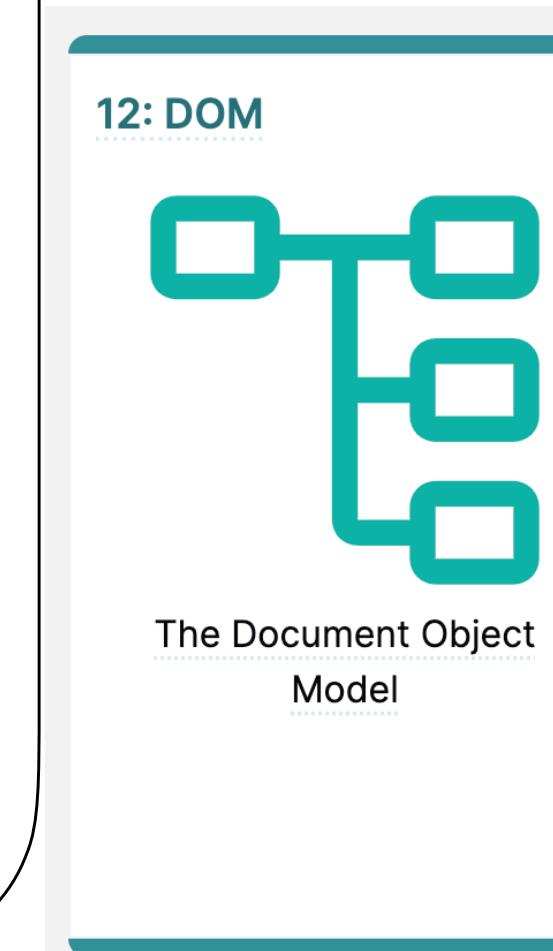
Core
Concepts²¹

Back End Web Development

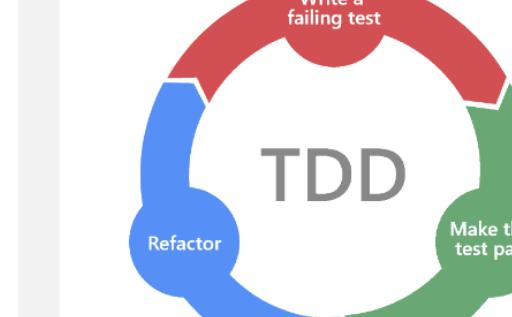
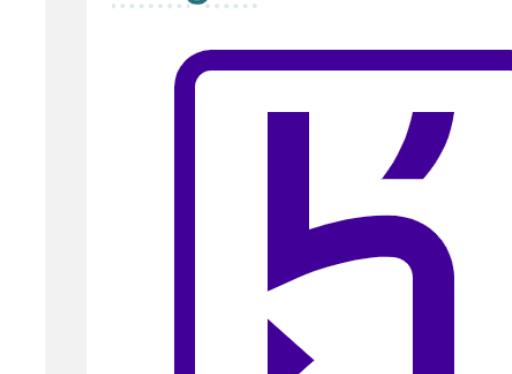
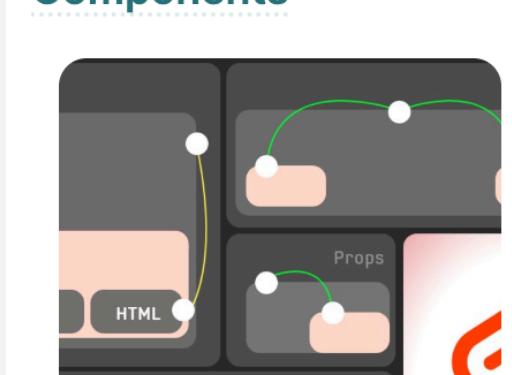
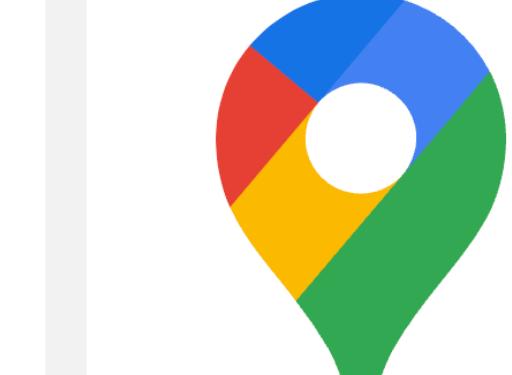
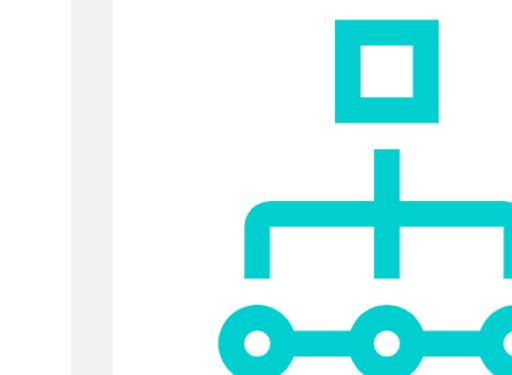
Test Driven Development

Application Programmer Interfaces

Front End Web Development



18 Topics

01: Node  The fundamentals of node. A first node application.	02: Hapi.js  The Hapi application Framework	03: Joi  Validation with Joi	04: TDD  Test Driven Development	05: Models  Incorporate Mongo Models	06: APIs  Expose an API from an application
07: REST  Resful API implementations	08: OpenAPI  Documentating OpenAPI/Swagger APIs	09: JWT  Authenticating APIs with JSON Web Tokens	10: Seeding  Seeding the Database	11: Deployment & Images  Deploying to Monogo Cloud, Heroku & Cloudinary	12: DOM  The Document Object Model
13: Svelte Introduction  First contact with the Svelte Framework	14: Svelte Components  Introducing the Svelte Component Model	15: Routing & Authentication 	16: Svelte Applications  The Structure of Applications in Svelte	17: Maps  Mapping components in Svelte	18: Charts & Graphs  Frappe Charts and Graphs in Svelte



Developer Roadmaps

roadmap.sh is a community effort to create roadmaps, guides and other educational content to help guide the developers in picking up the path and guide their learnings.

<https://roadmap.sh/>

Role based Roadmaps

Frontend

Backend

DevOps

Android

DBA

Blockchain

● New

QA

Software Architect

ASP.NET Core

● New

Flutter

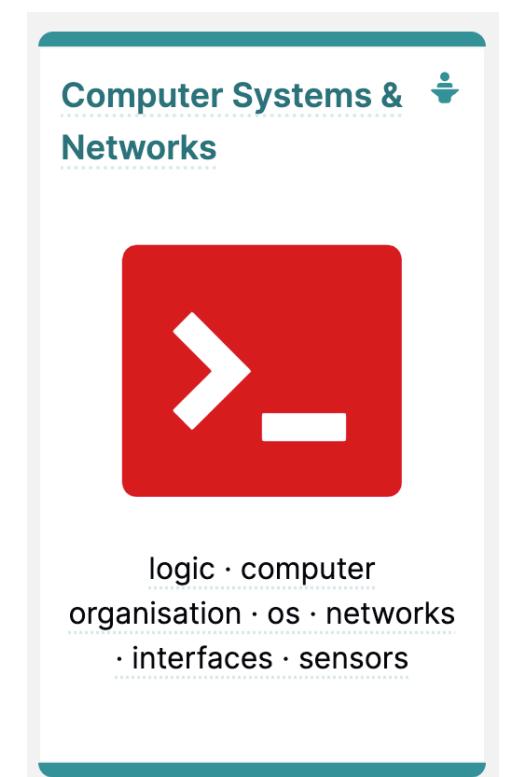
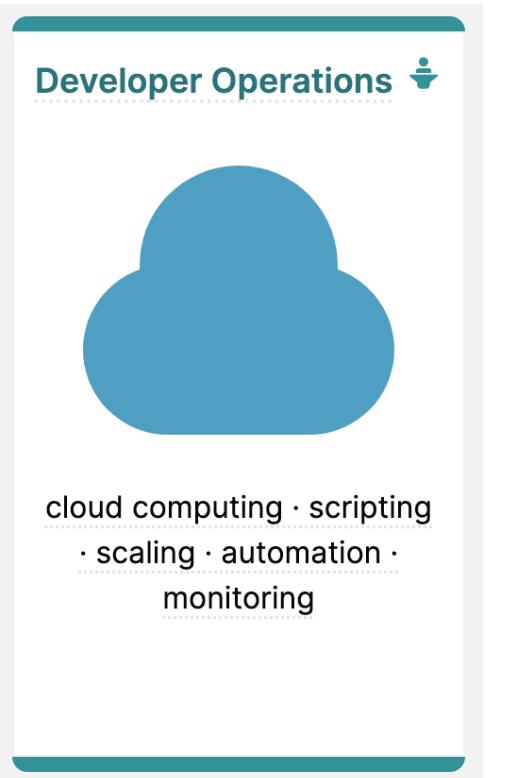
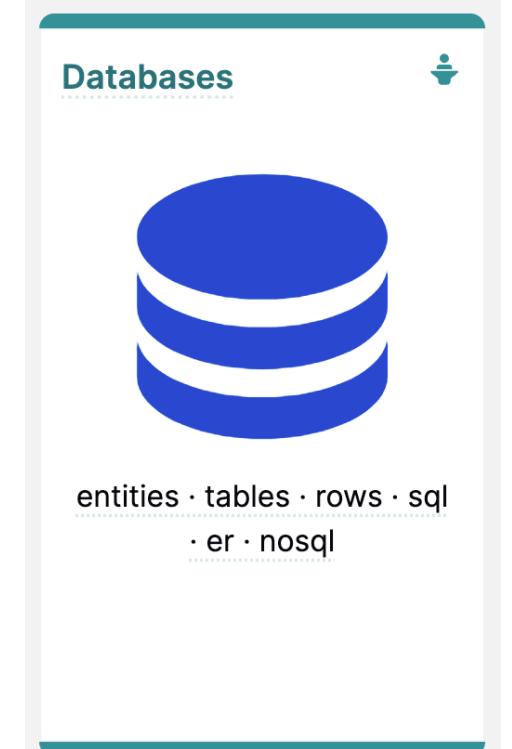
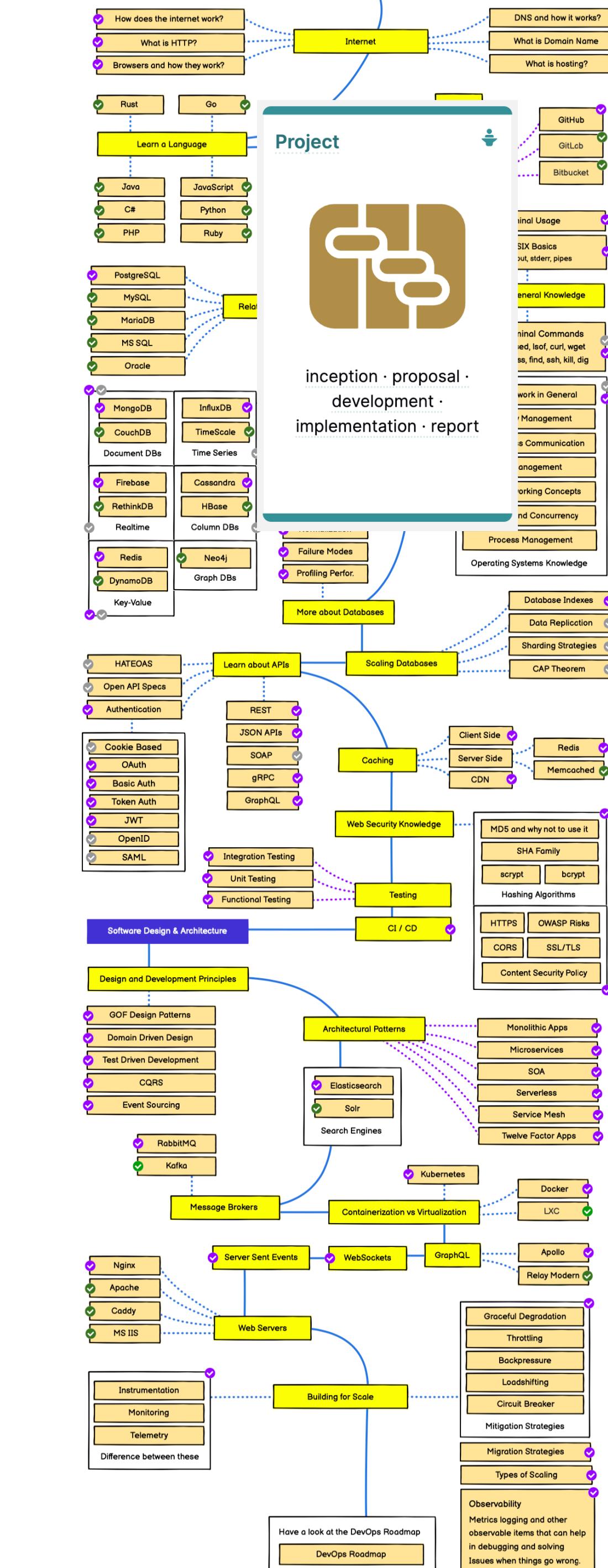
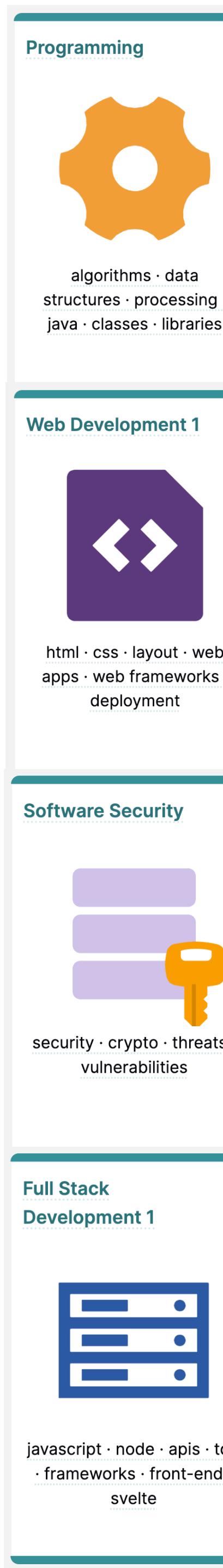
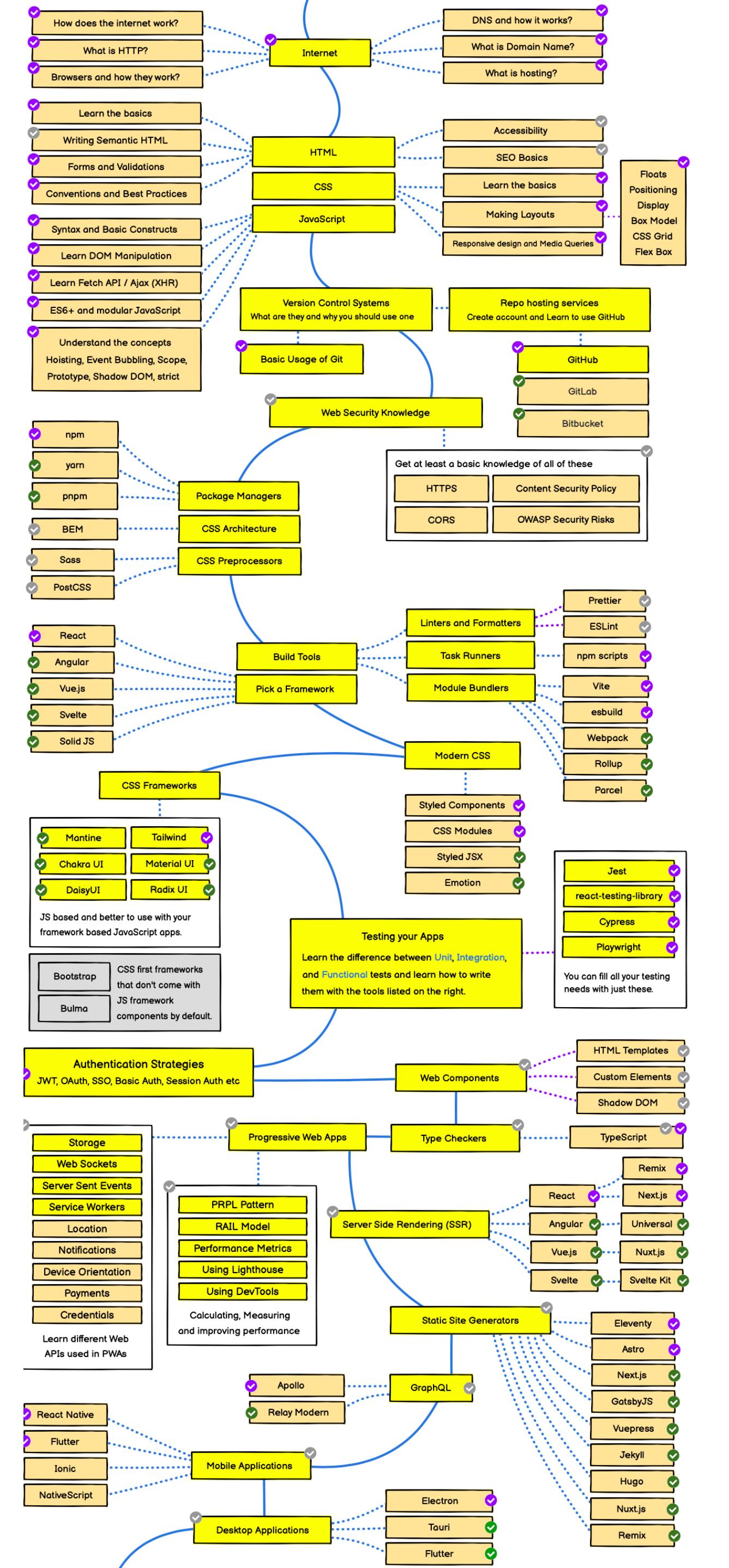
React Native

Cyber Security

● Upcoming

● New

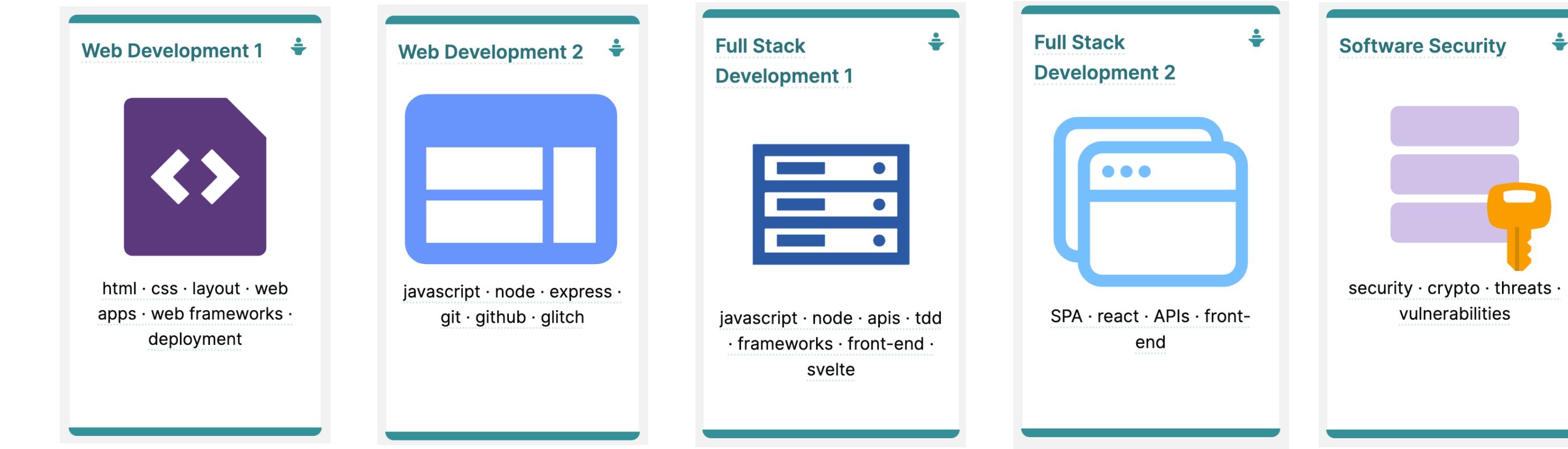
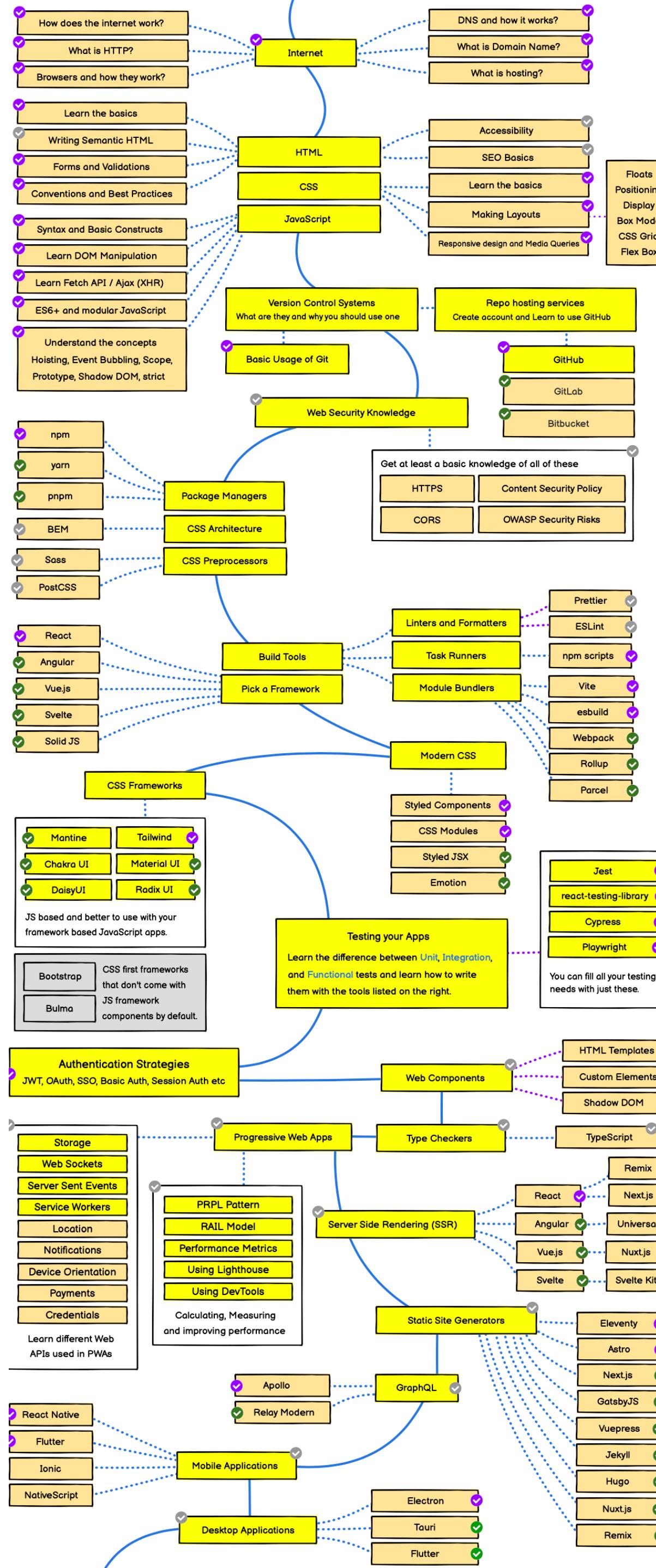
● Upcoming



Frontend

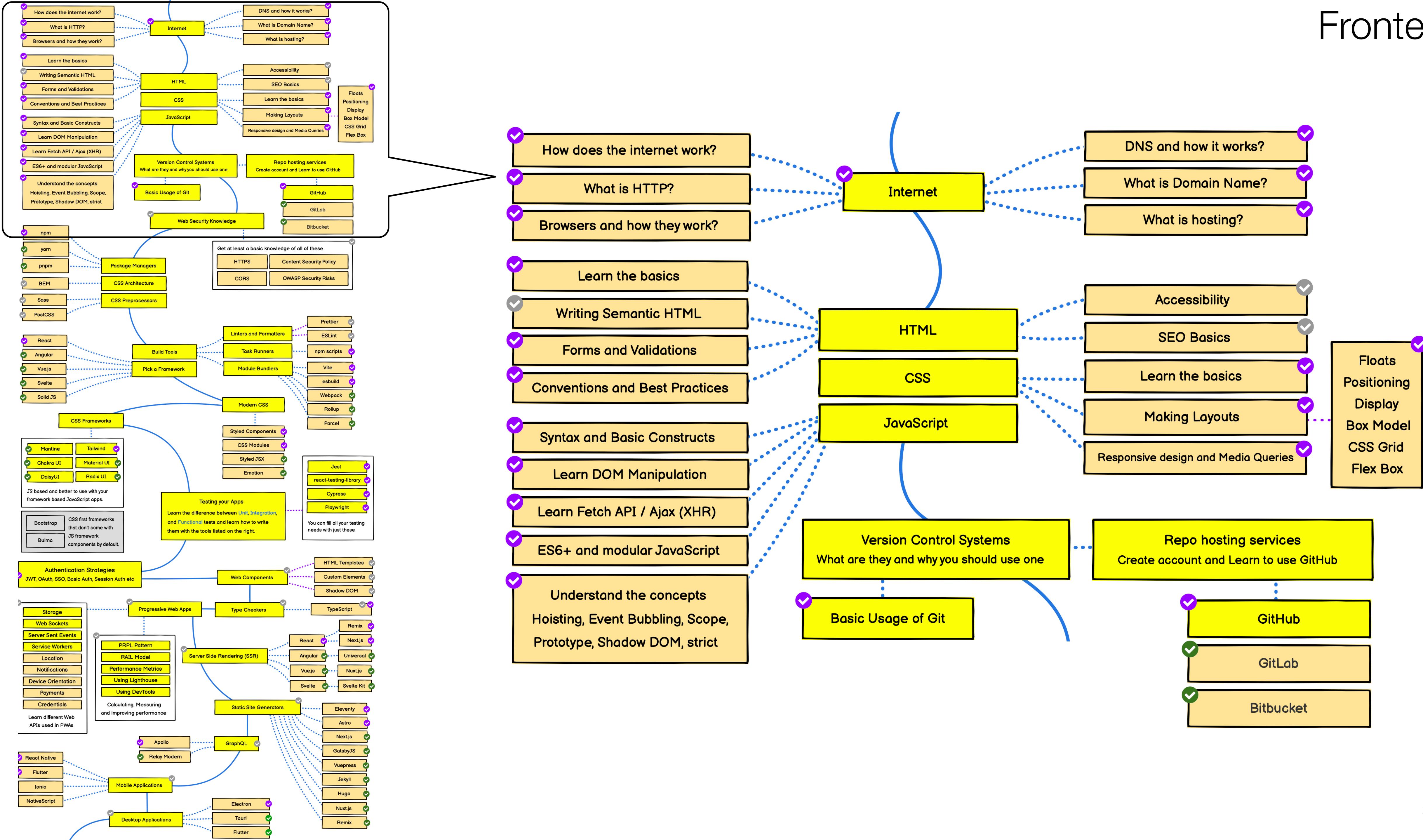
Backend₂₆

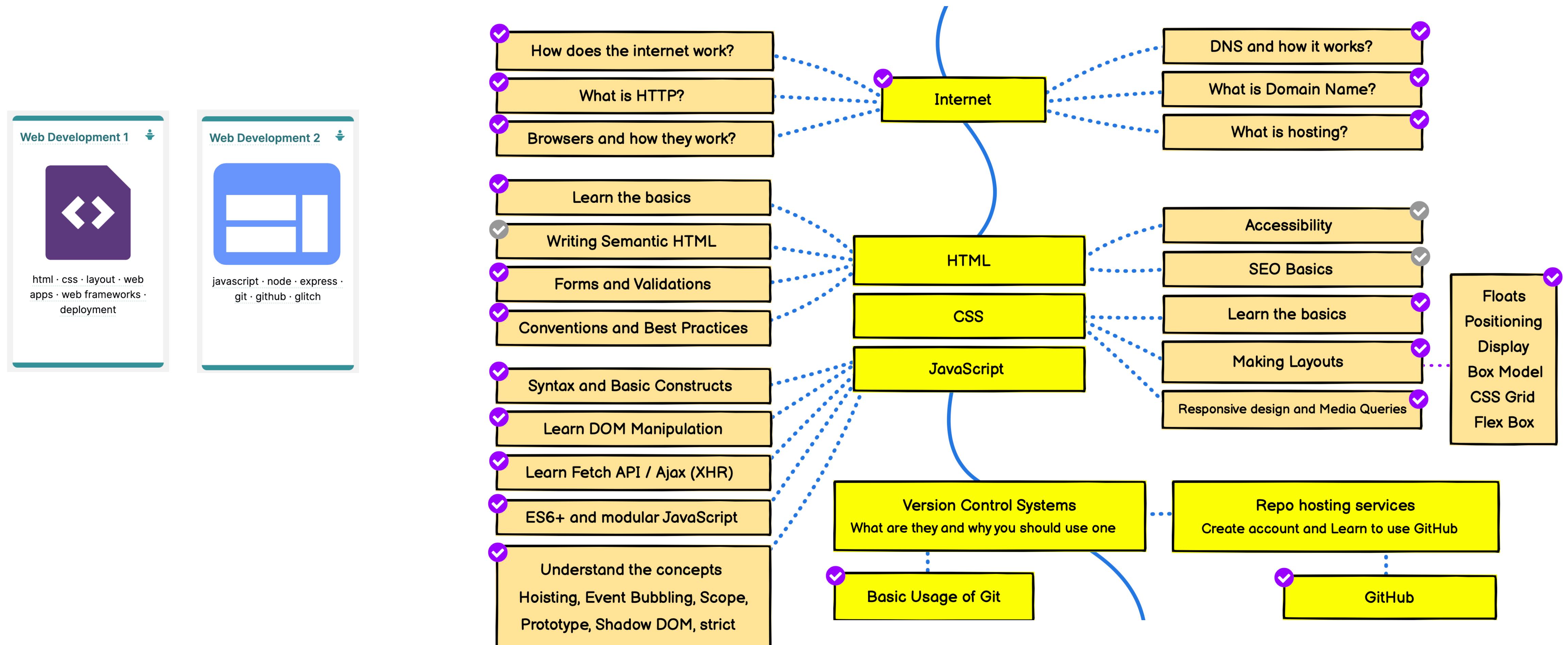
Frontend



- Building Blocks of the Web Experience
- Core Build Tools
- Framework Fundamentals
- CSS Frameworks
- Testing Strategies
- Browser API & Performance
- Site Generation

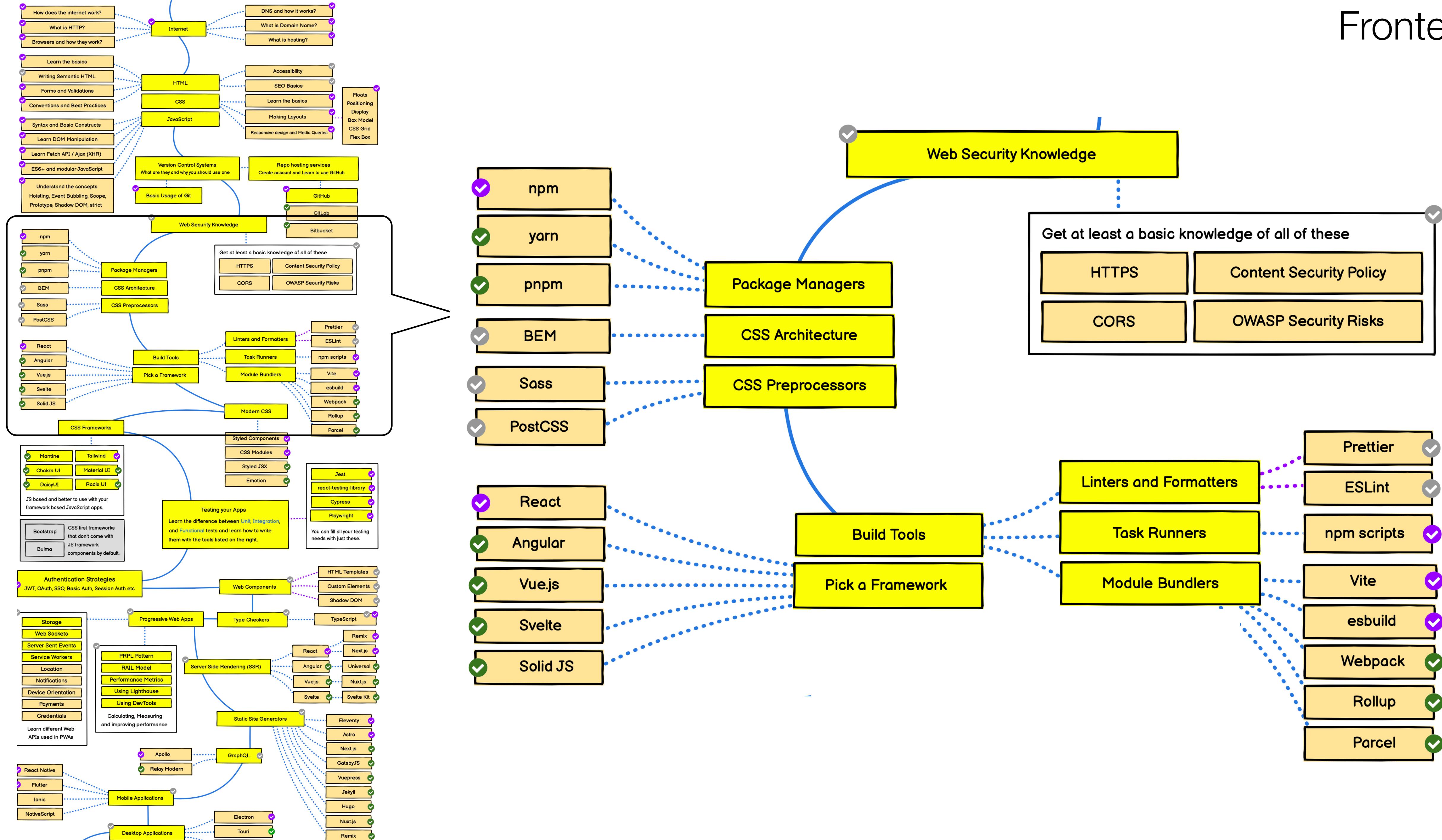
Frontend

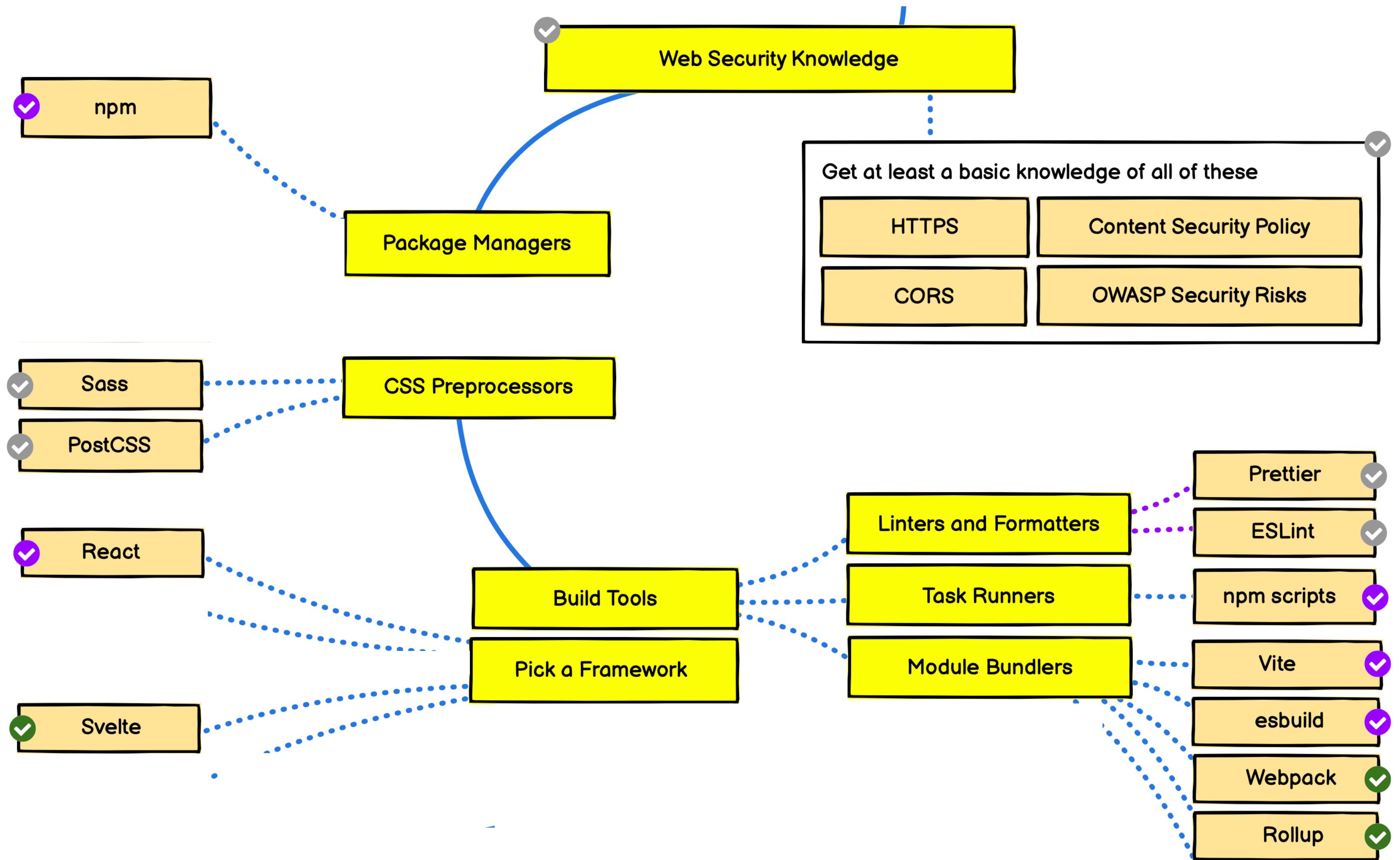
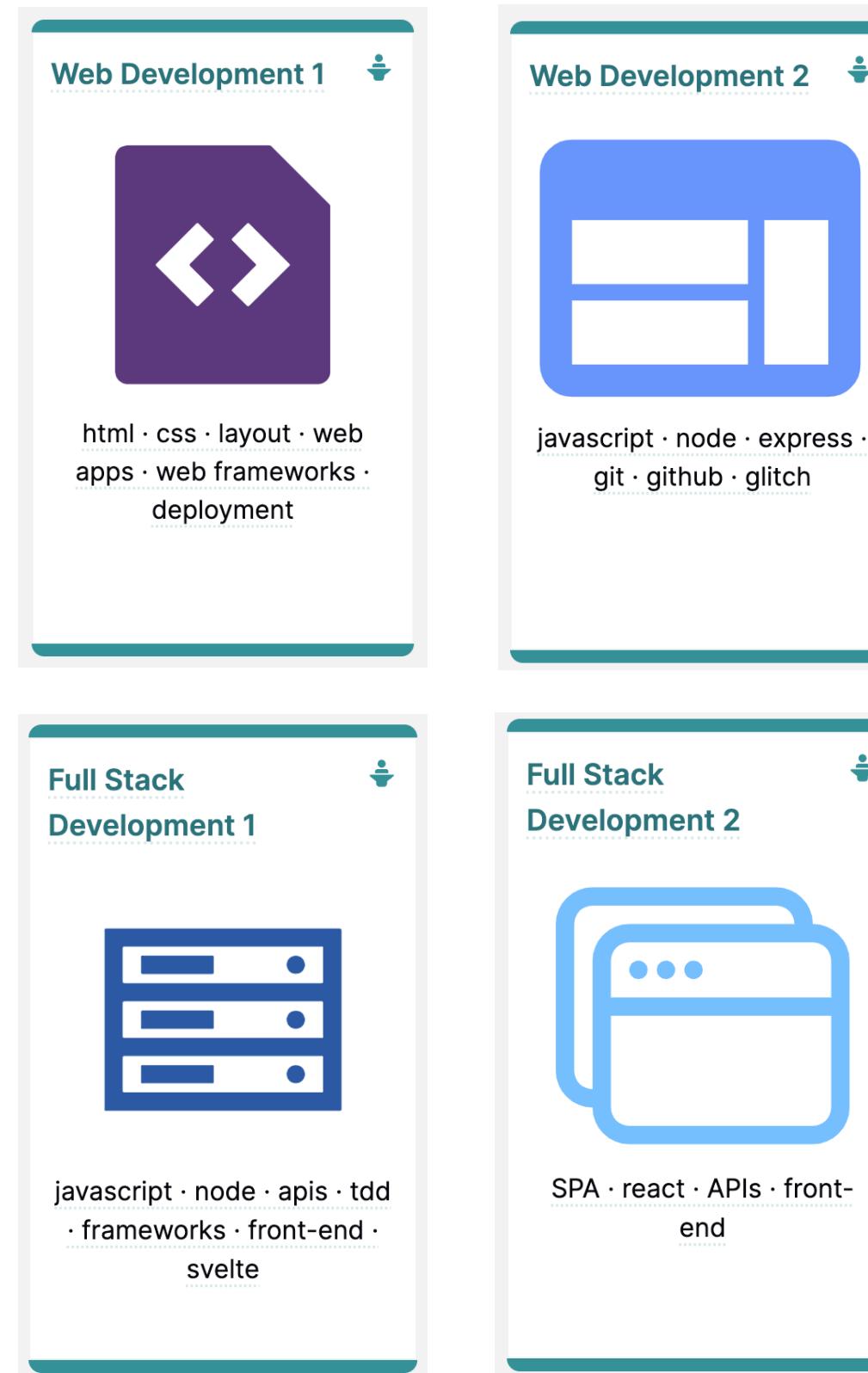




Building Blocks of the Web Experience

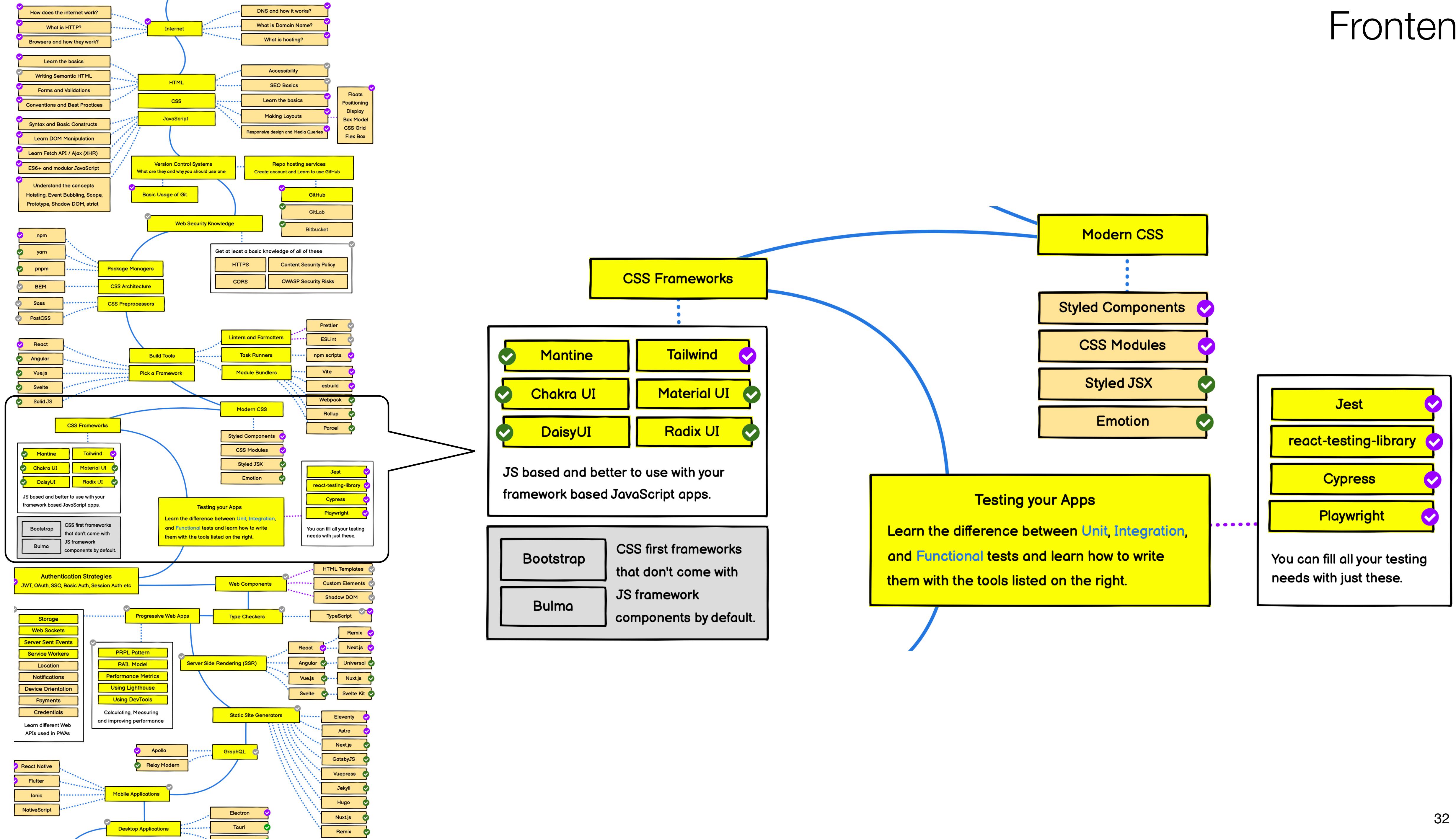
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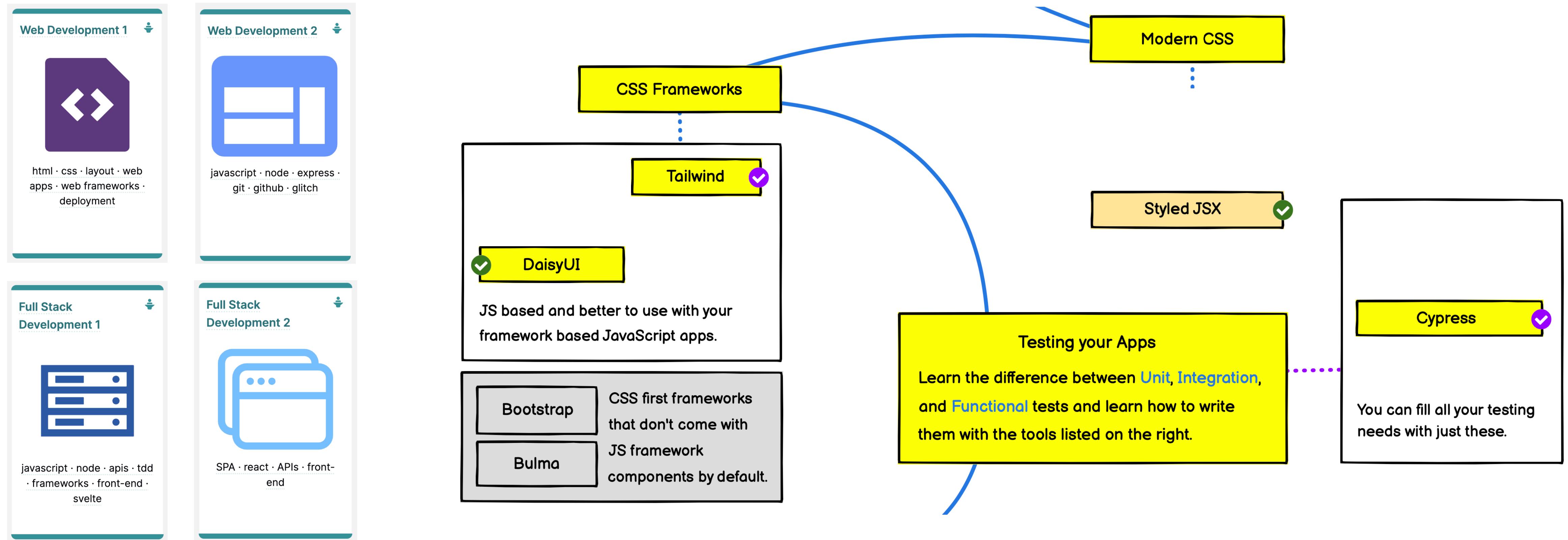




Core Build Tools + Framework Fundamentals

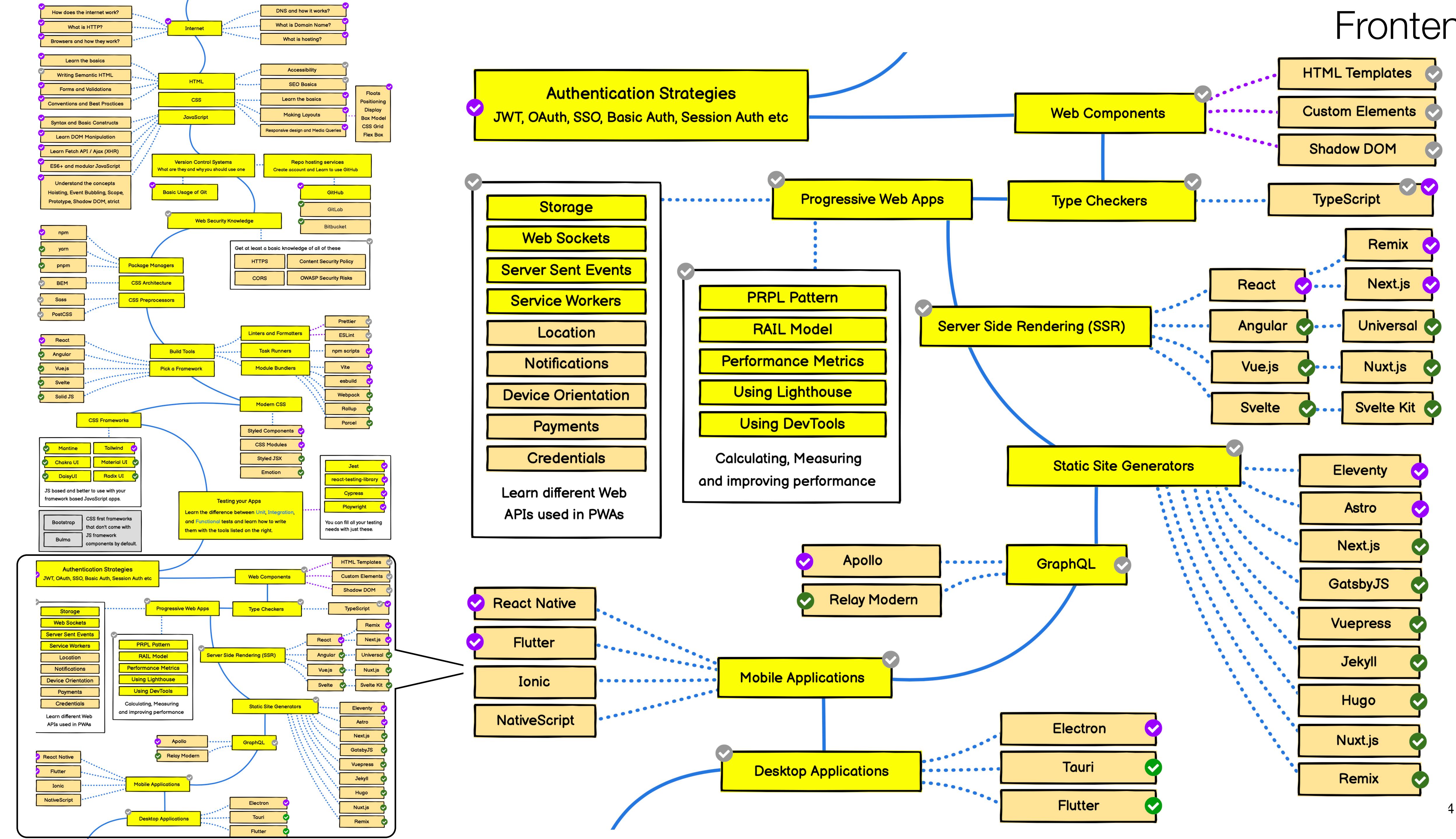
Frontend

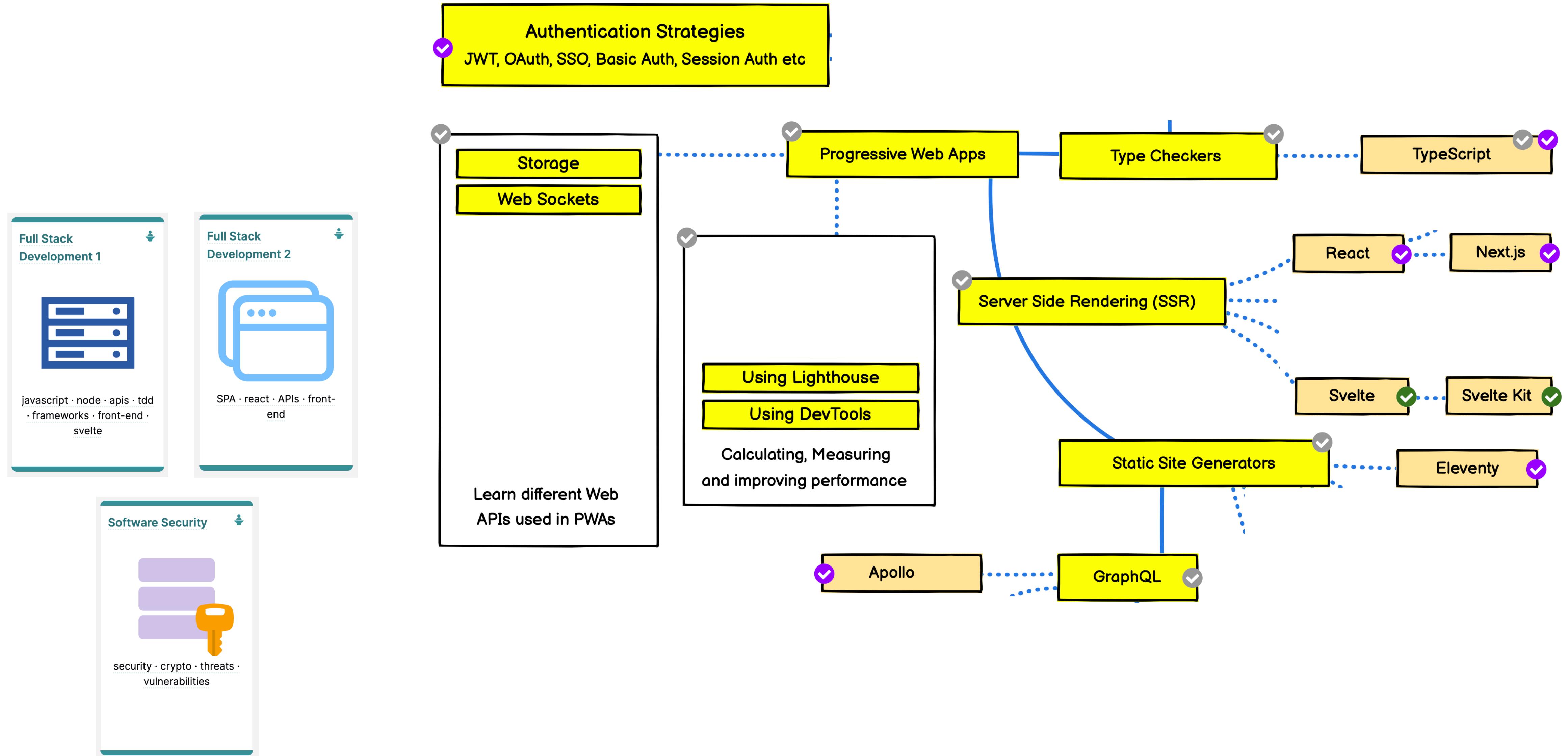




CSS Frameworks + Testing Strategies

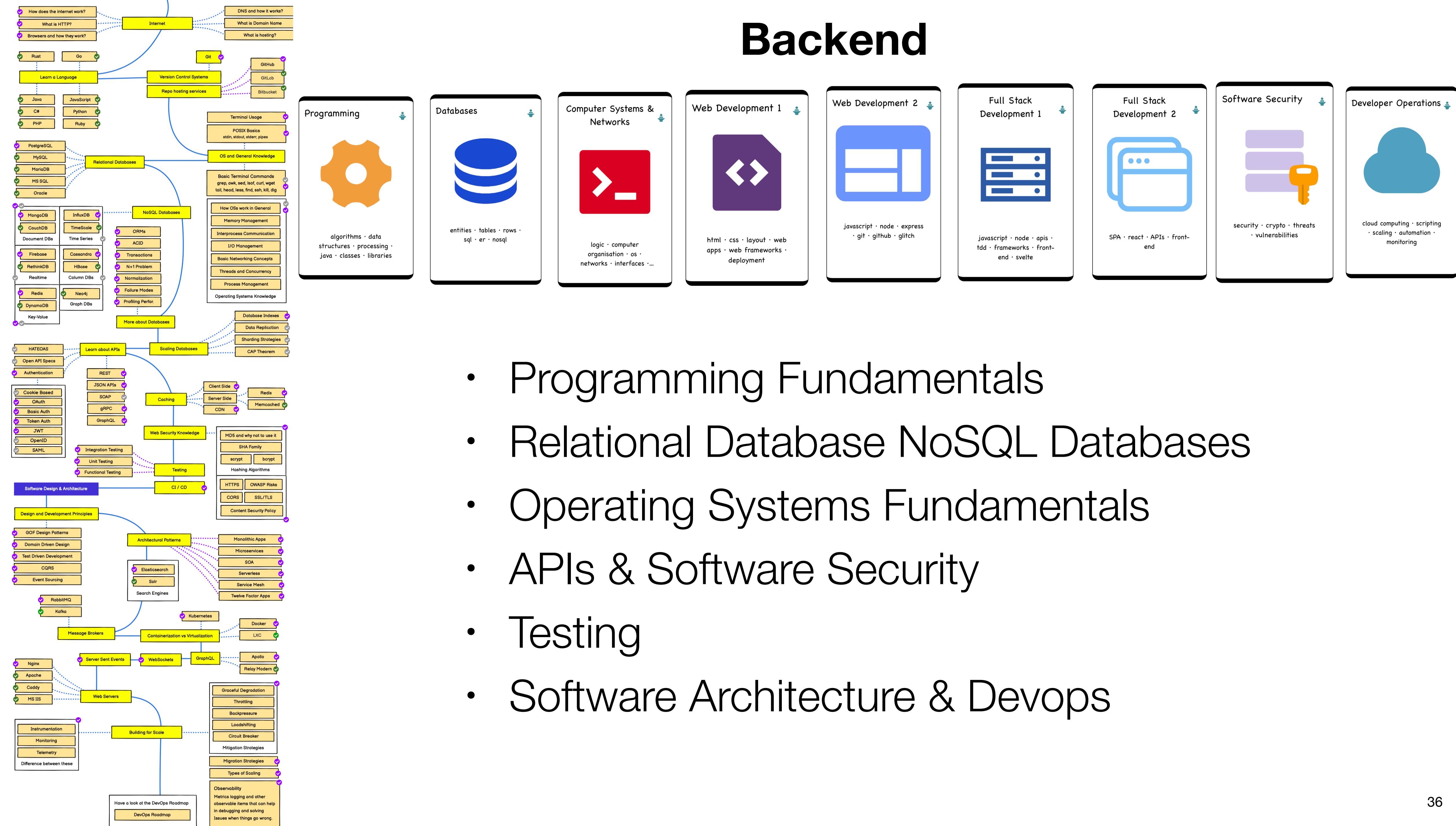
Frontend





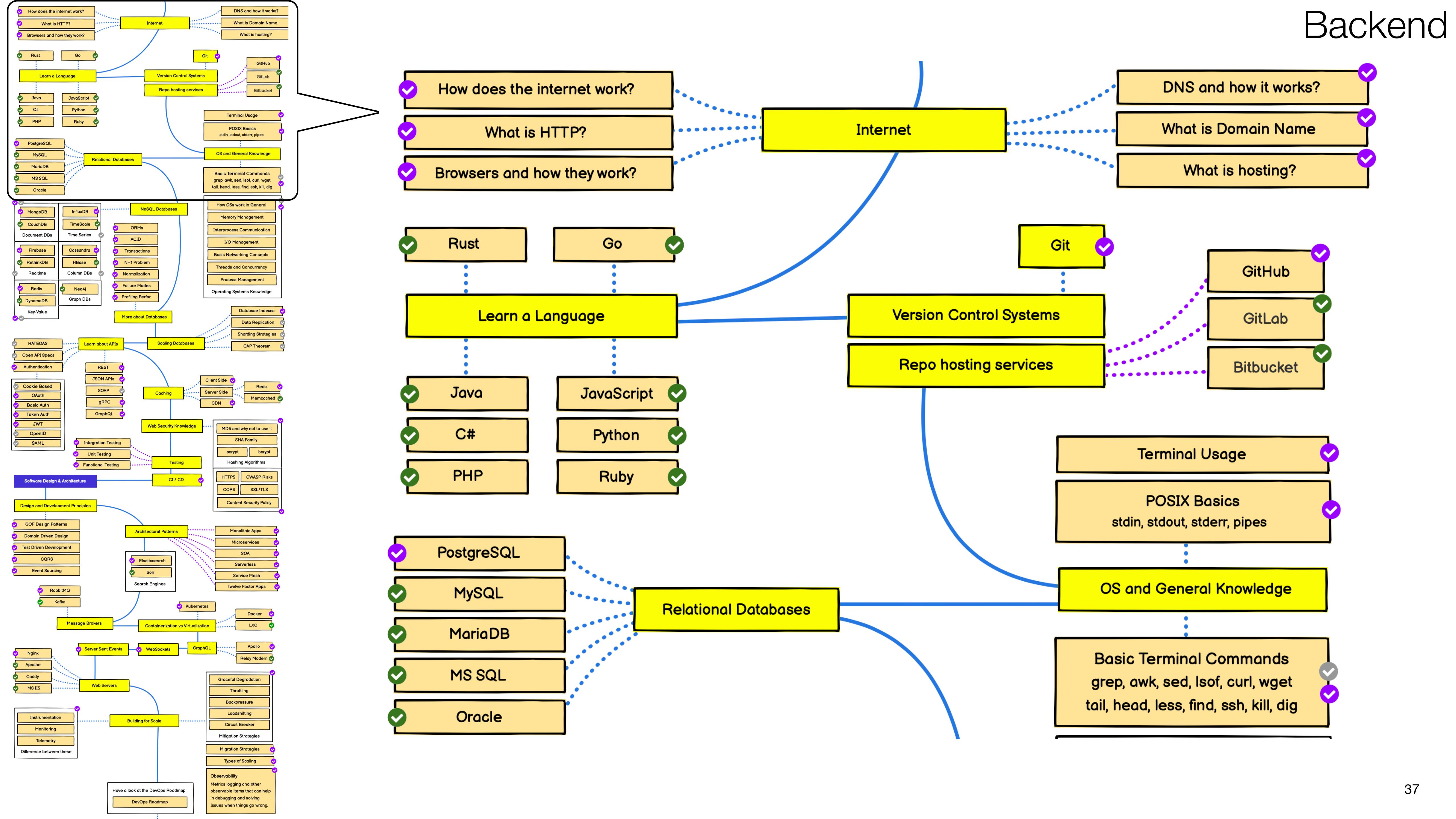
Browser API, Performance & Site Generation

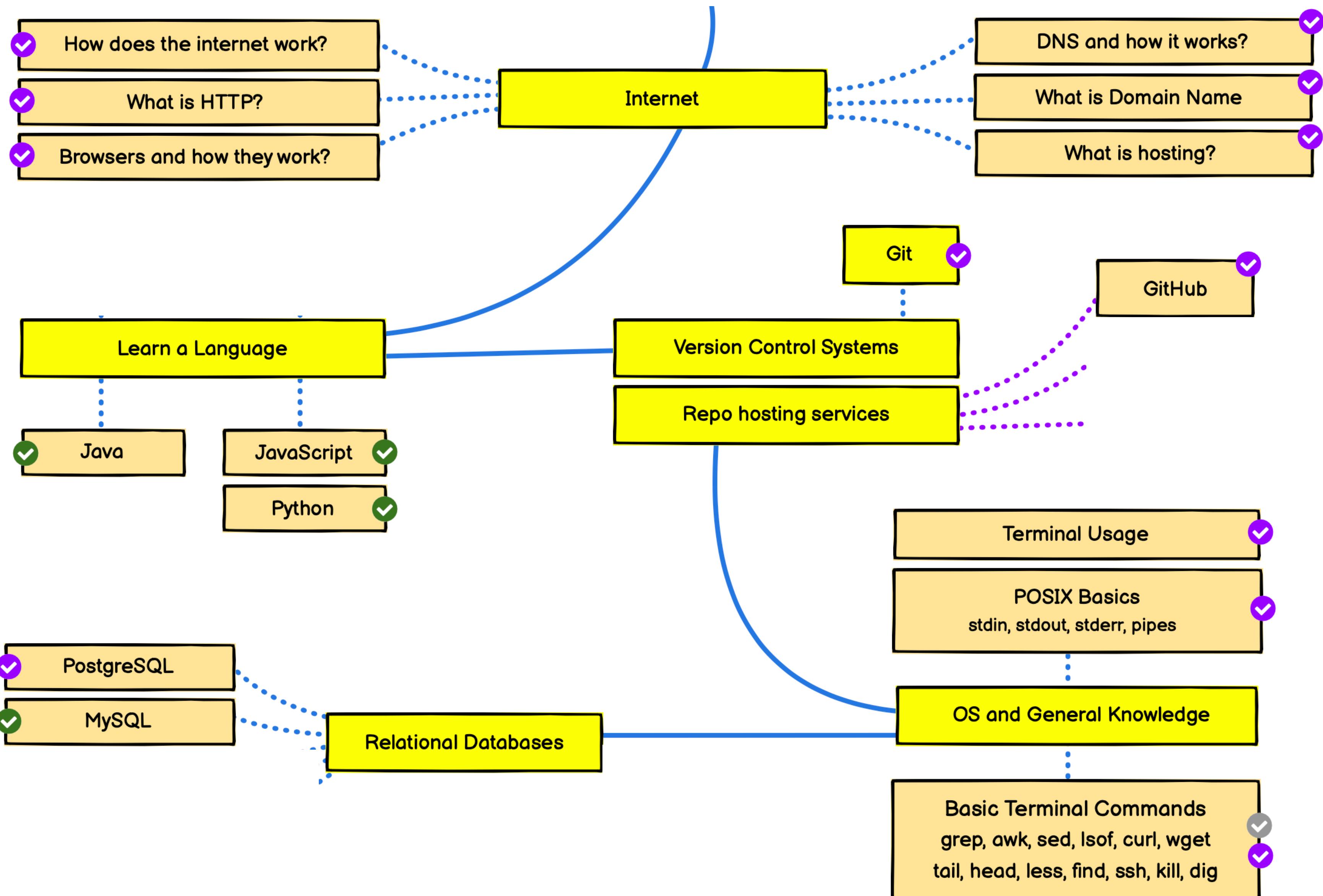
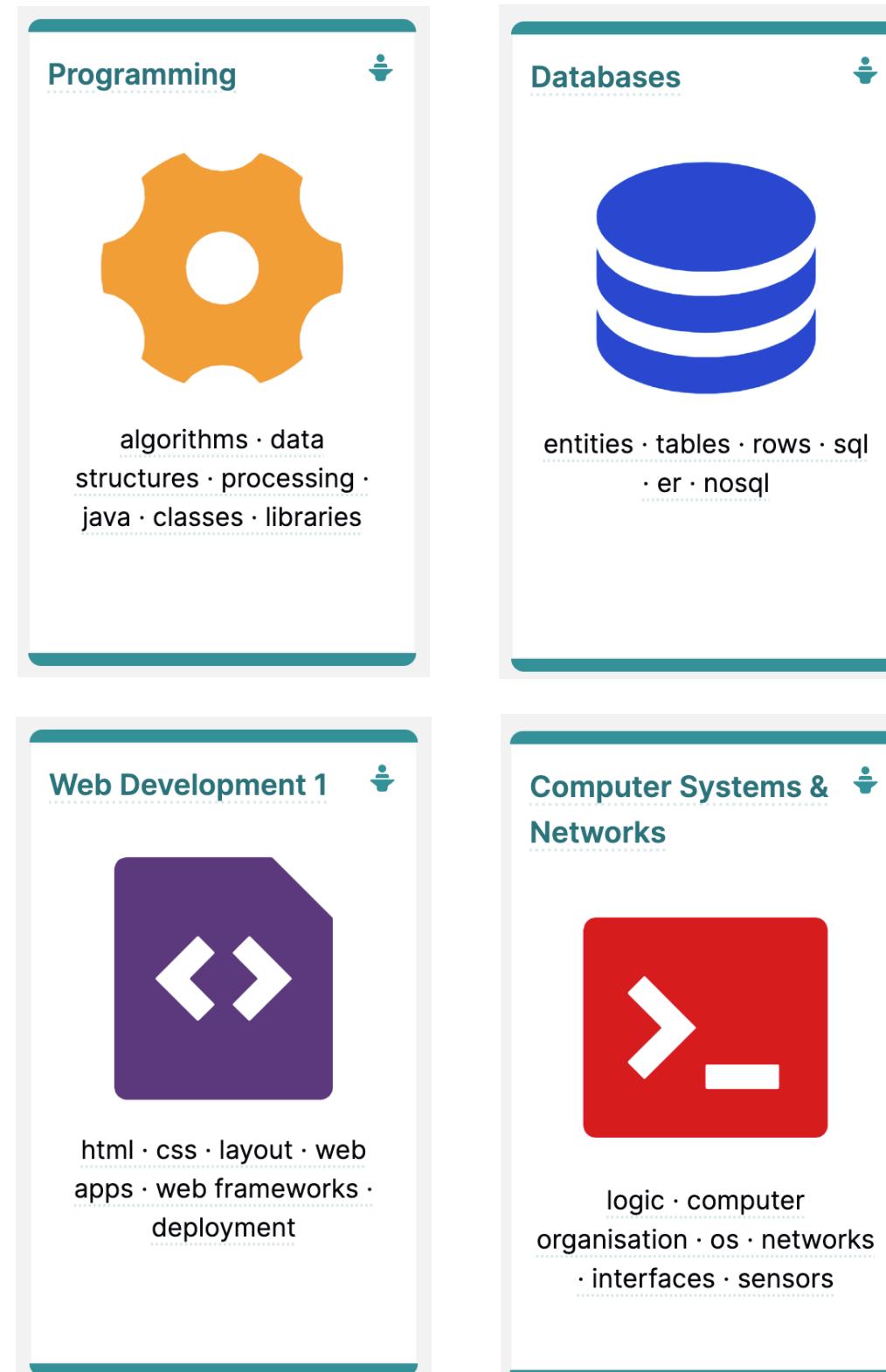
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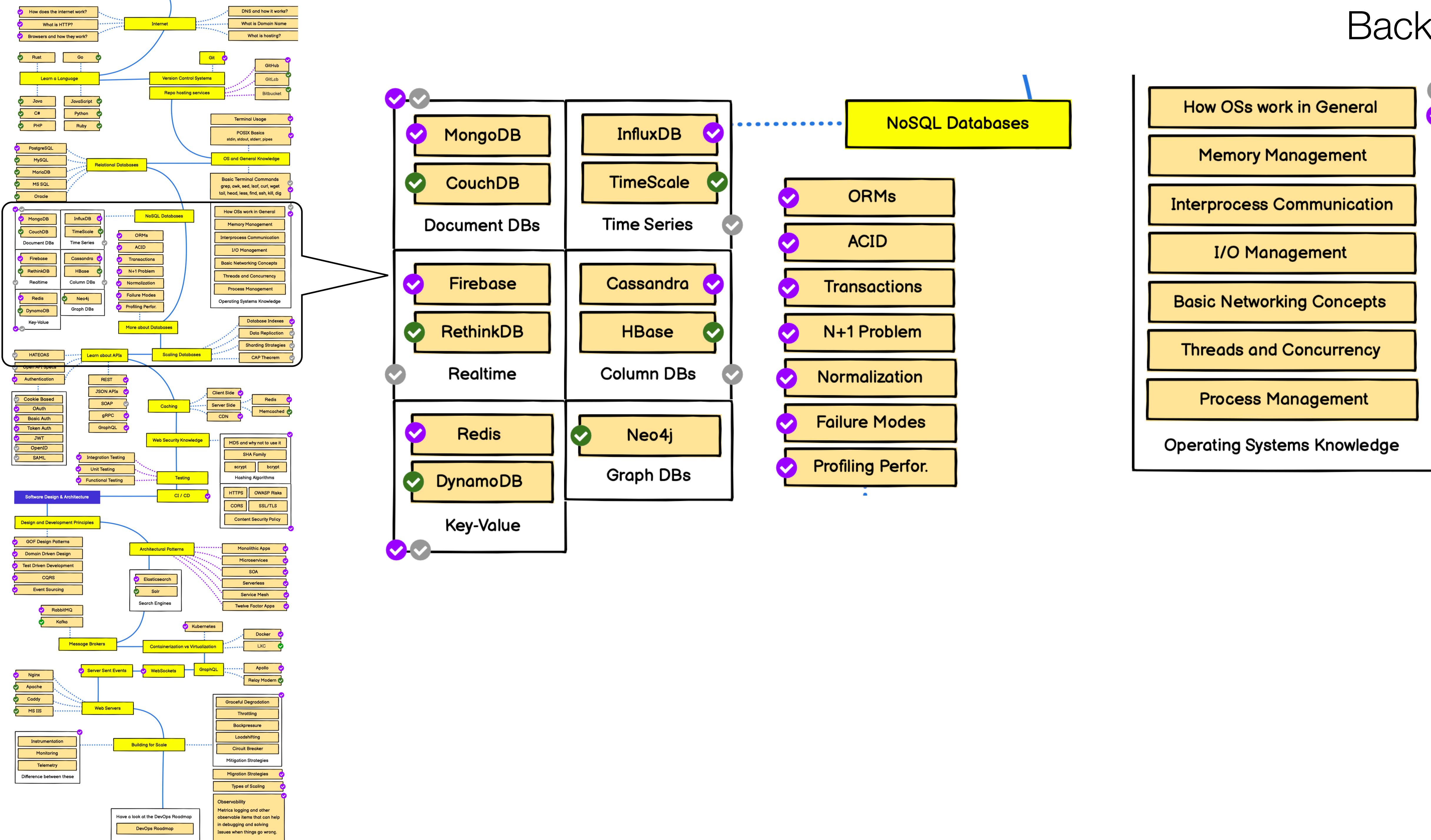
- Programming Fundamentals
- Relational Database NoSQL Databases
- Operating Systems Fundamentals
- APIs & Software Security
- Testing
- Software Architecture & Devops

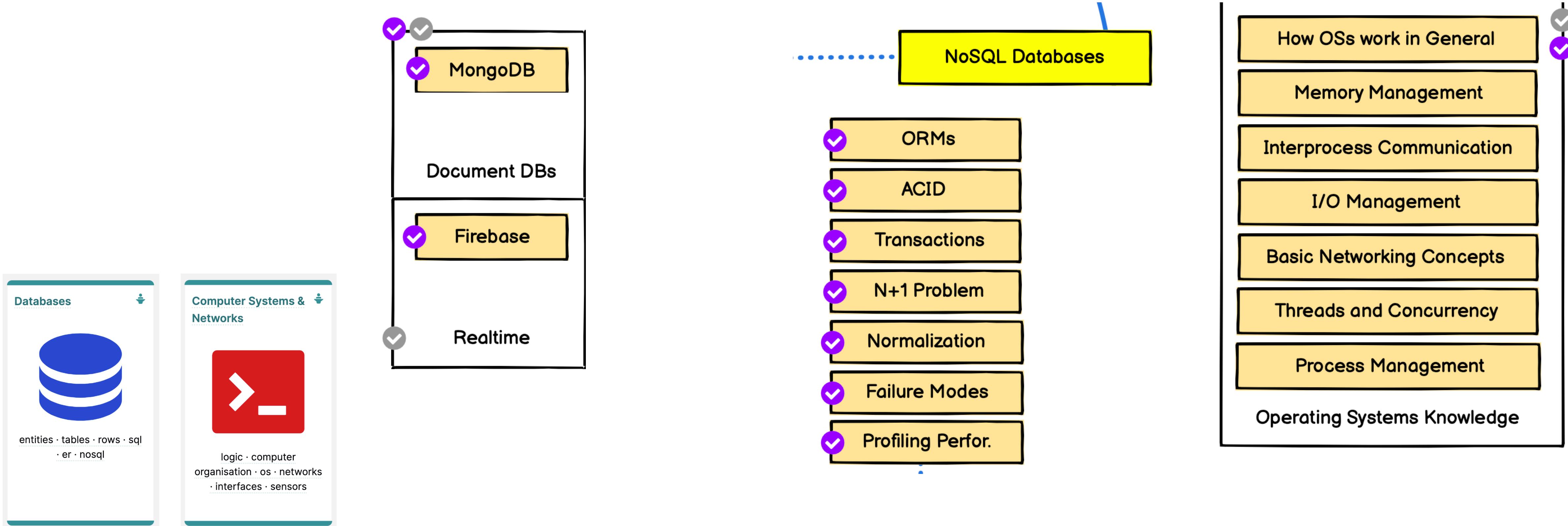
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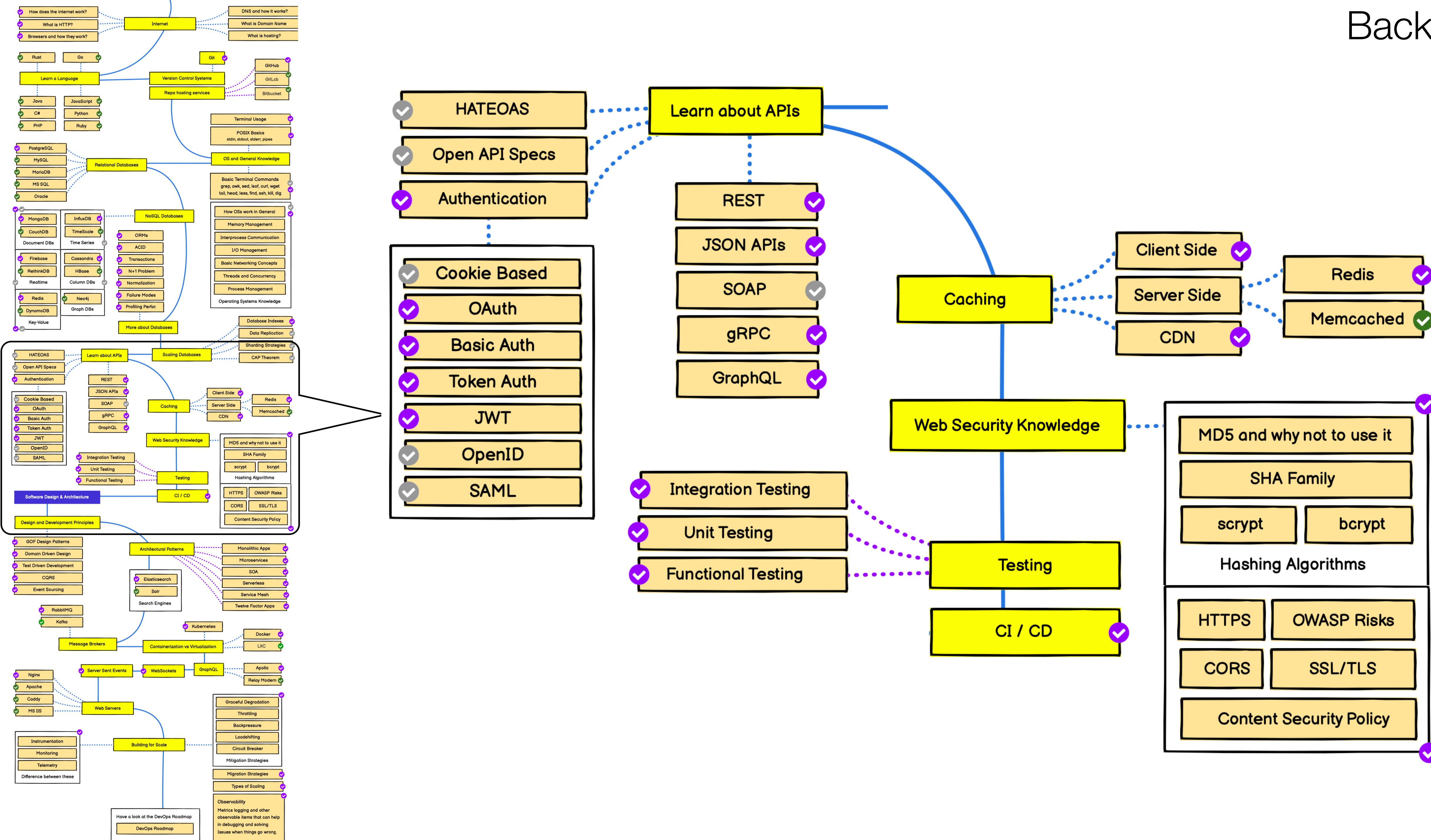
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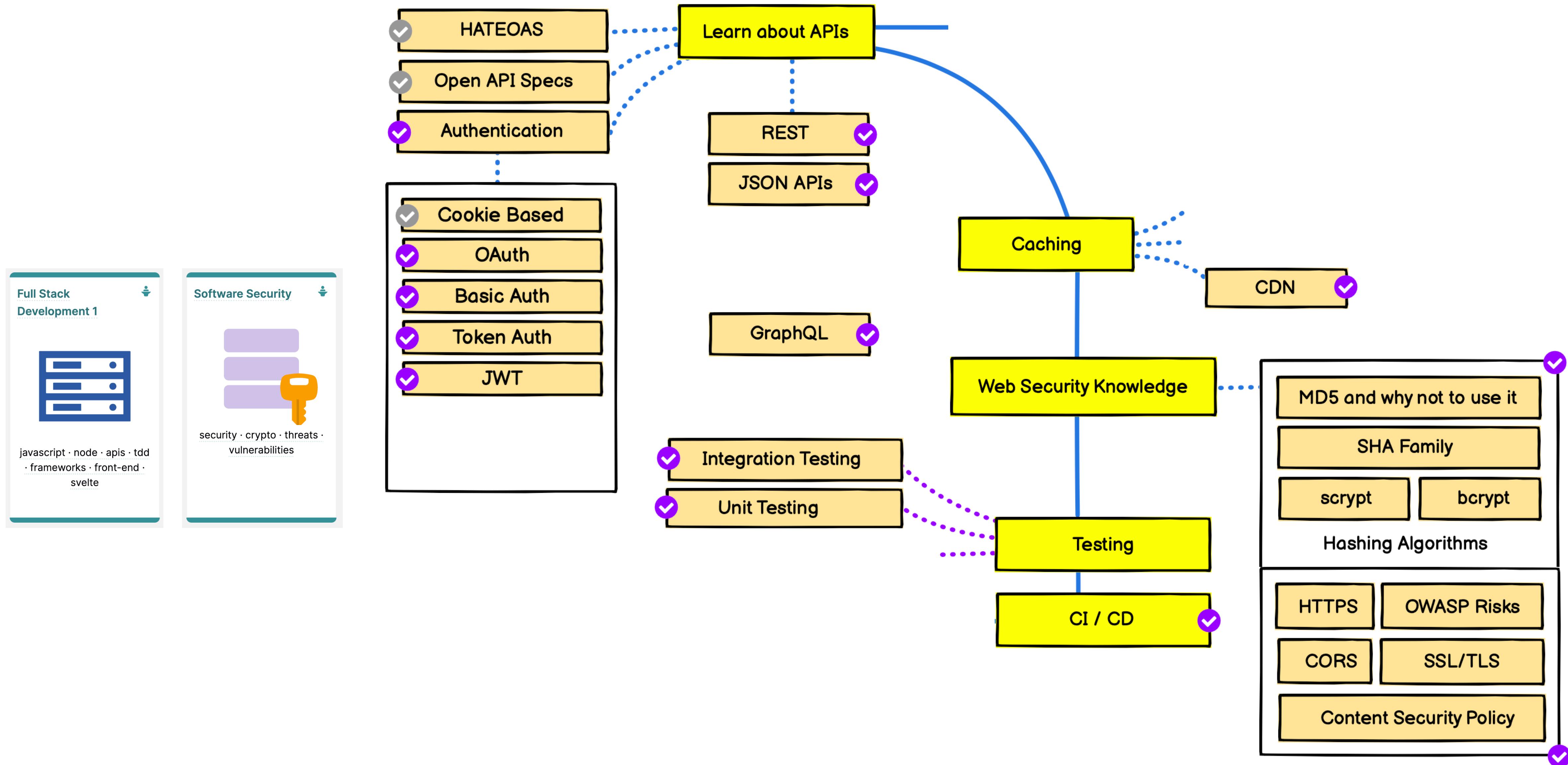




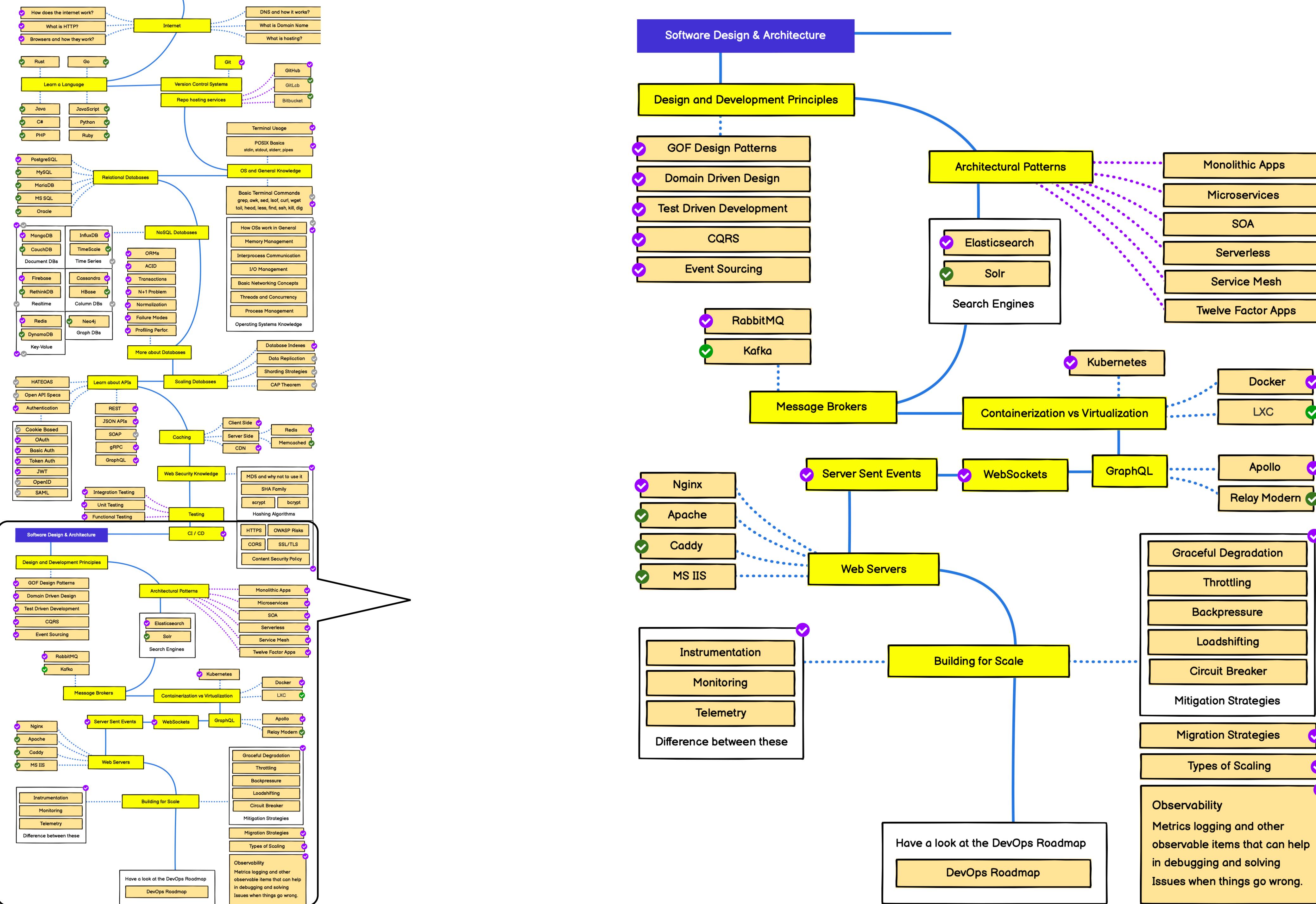
NoSQL Databases & Operating Systems

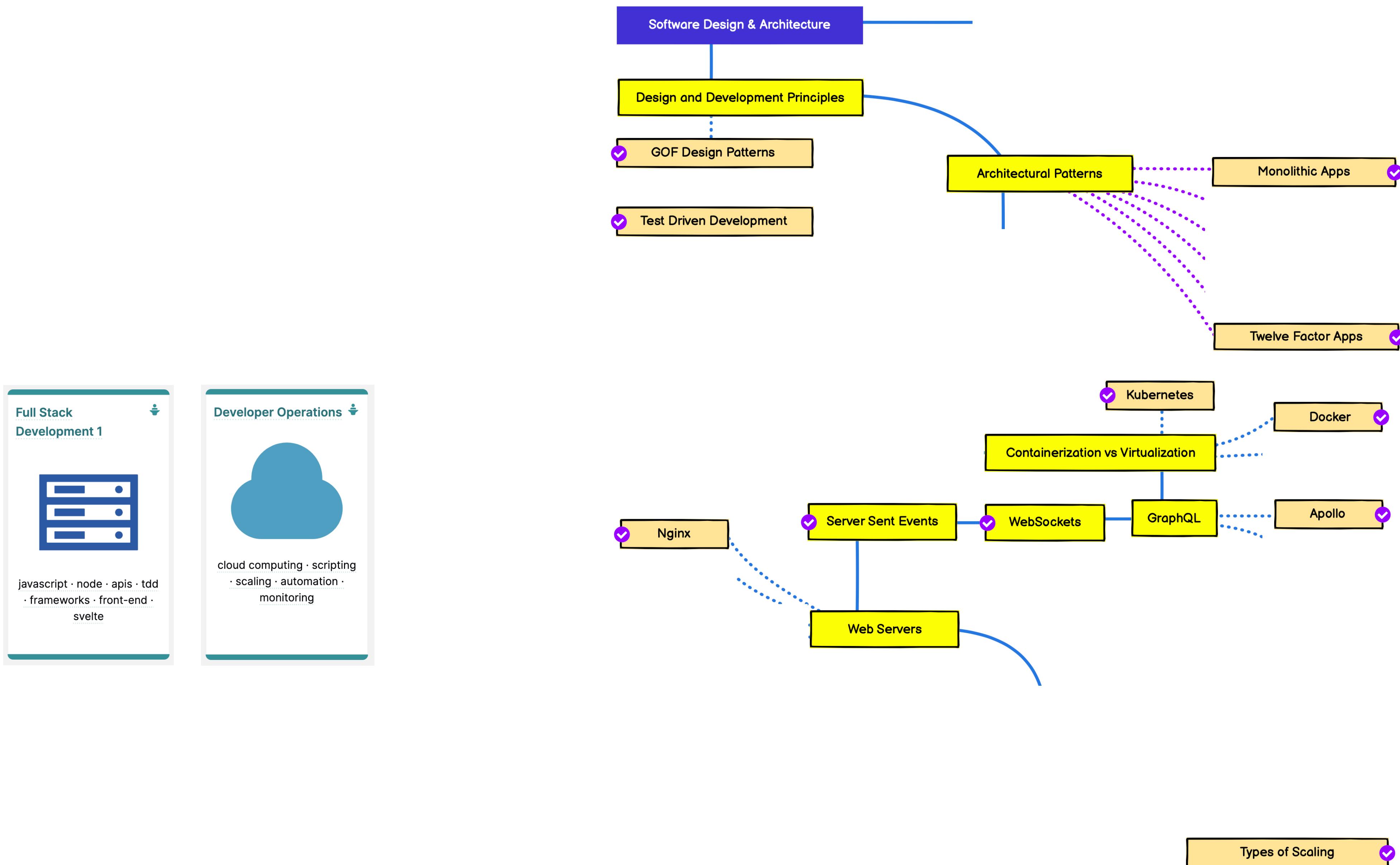
Backend



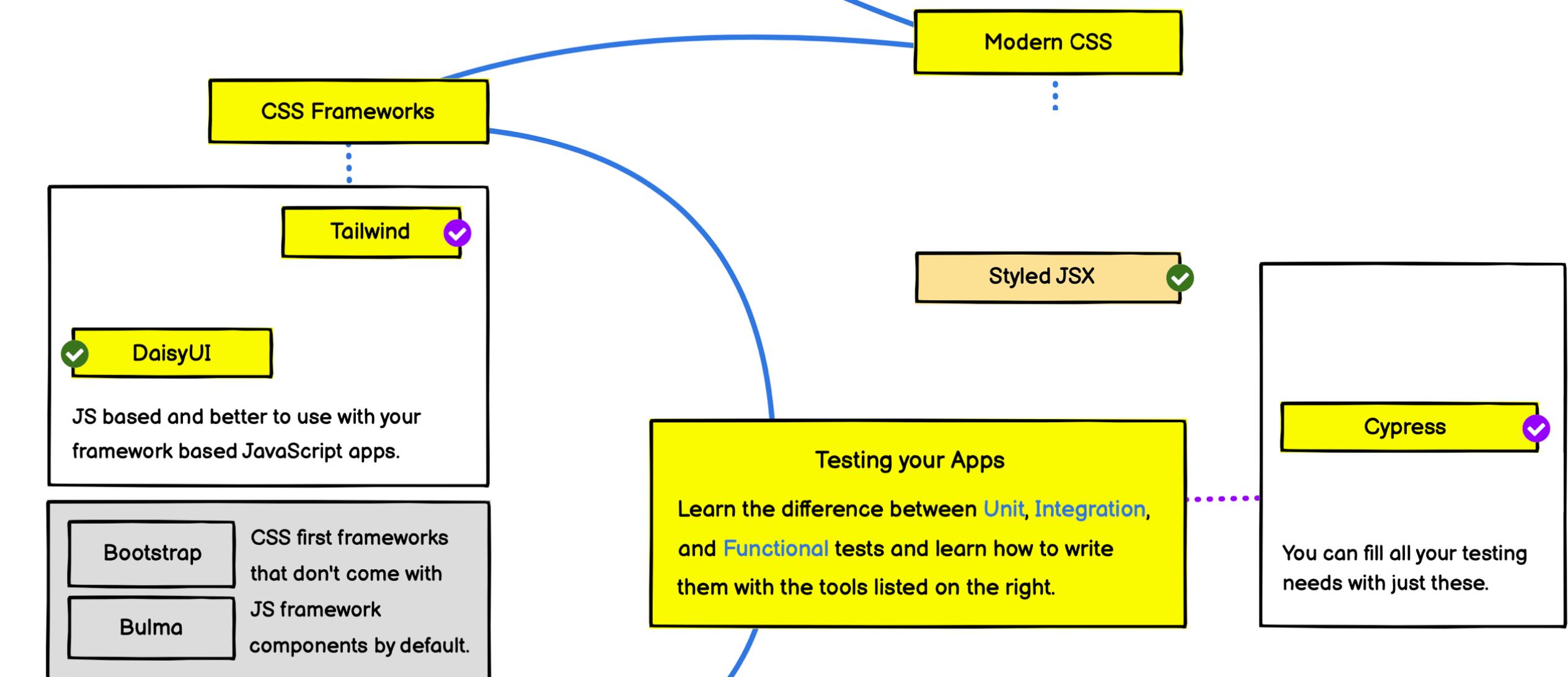
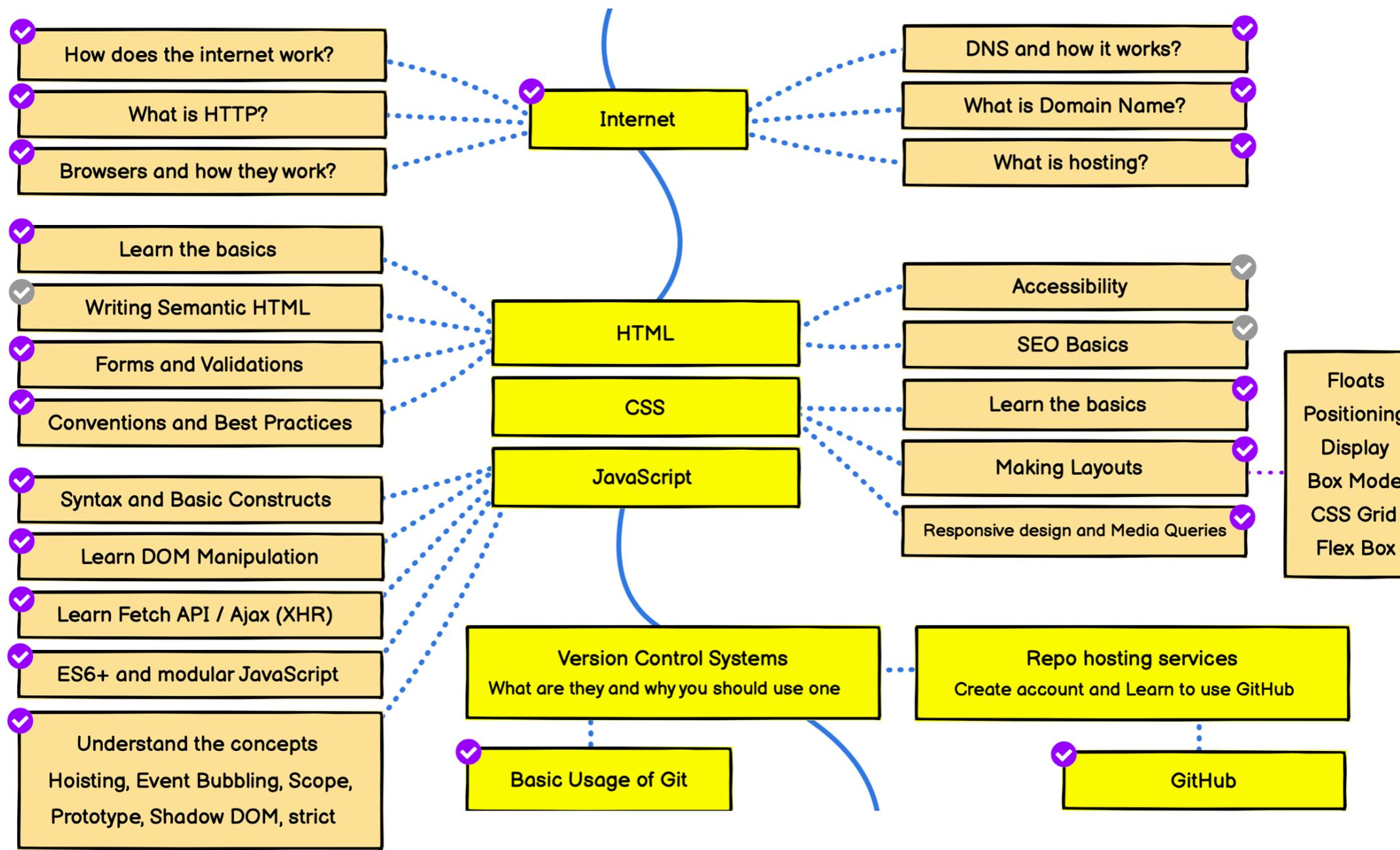


Backend

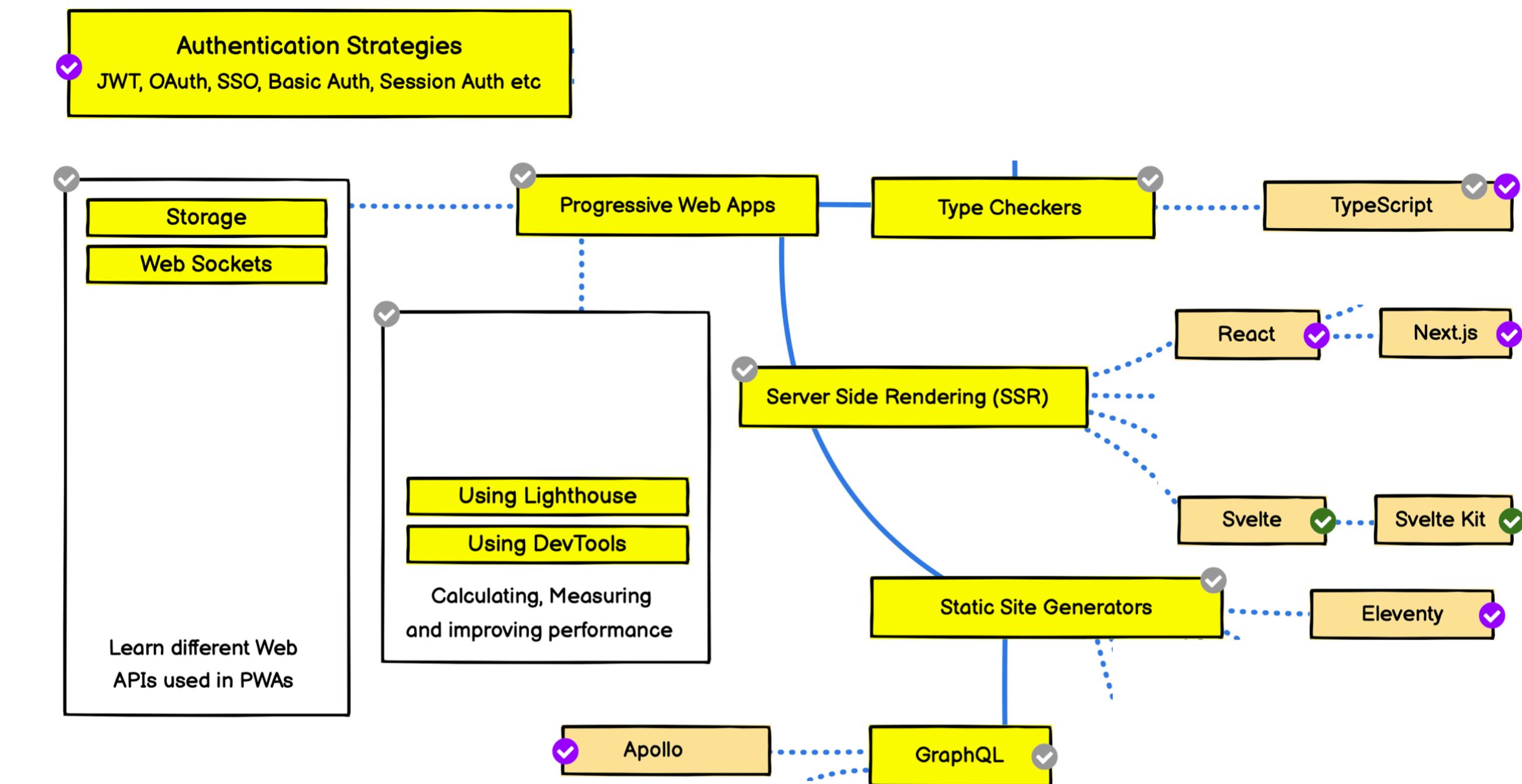
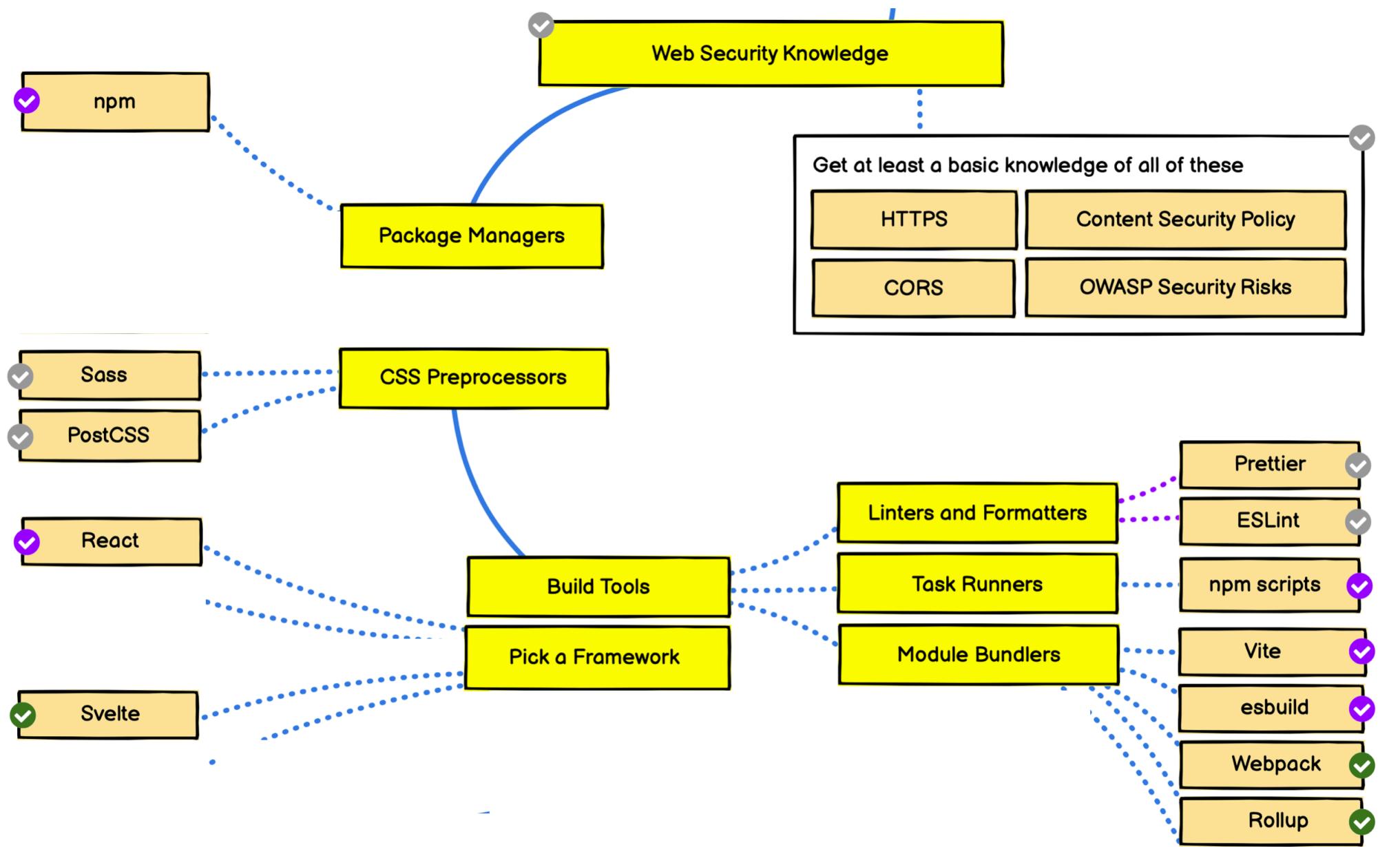


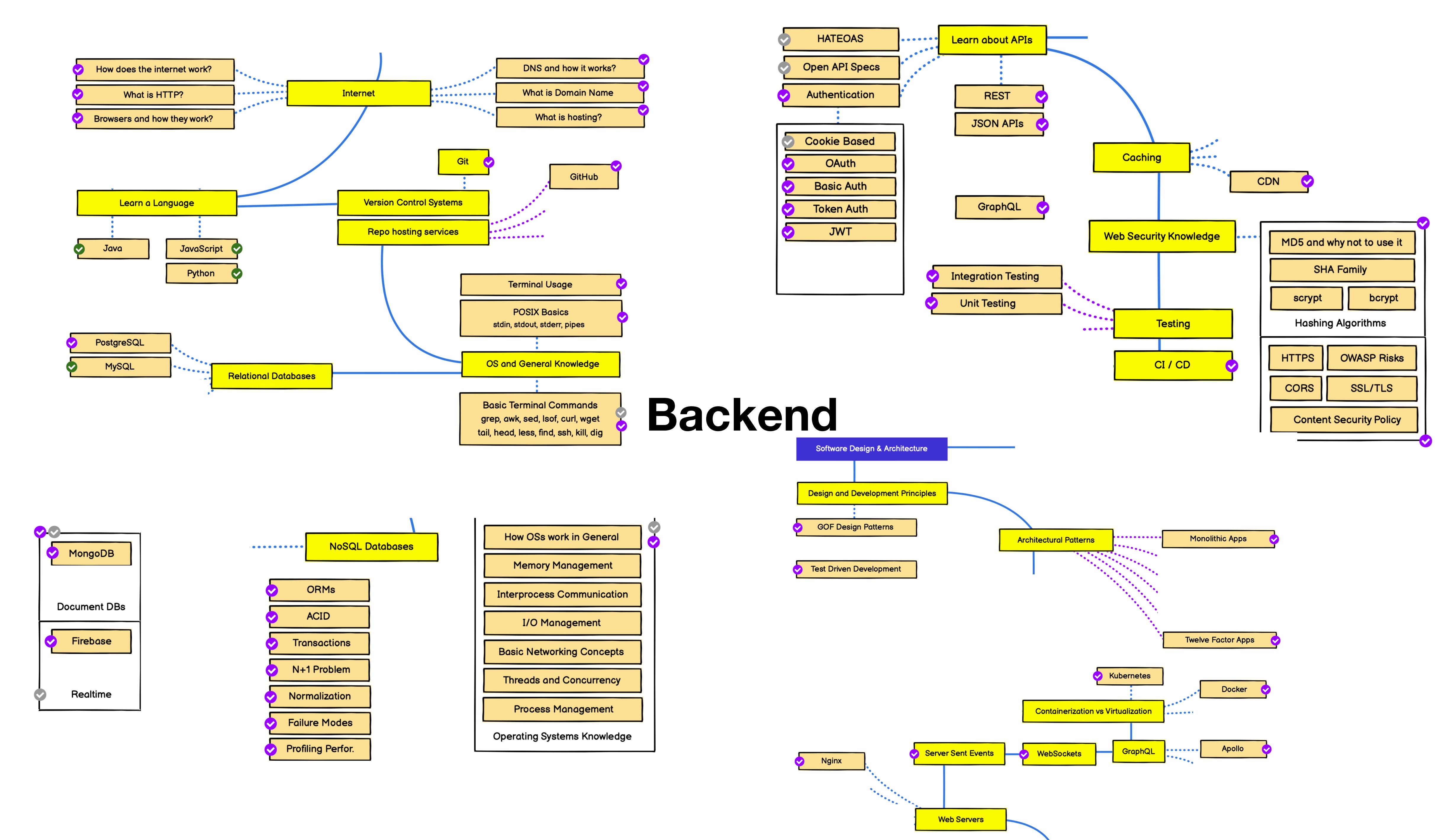


Software Architecture & Devops

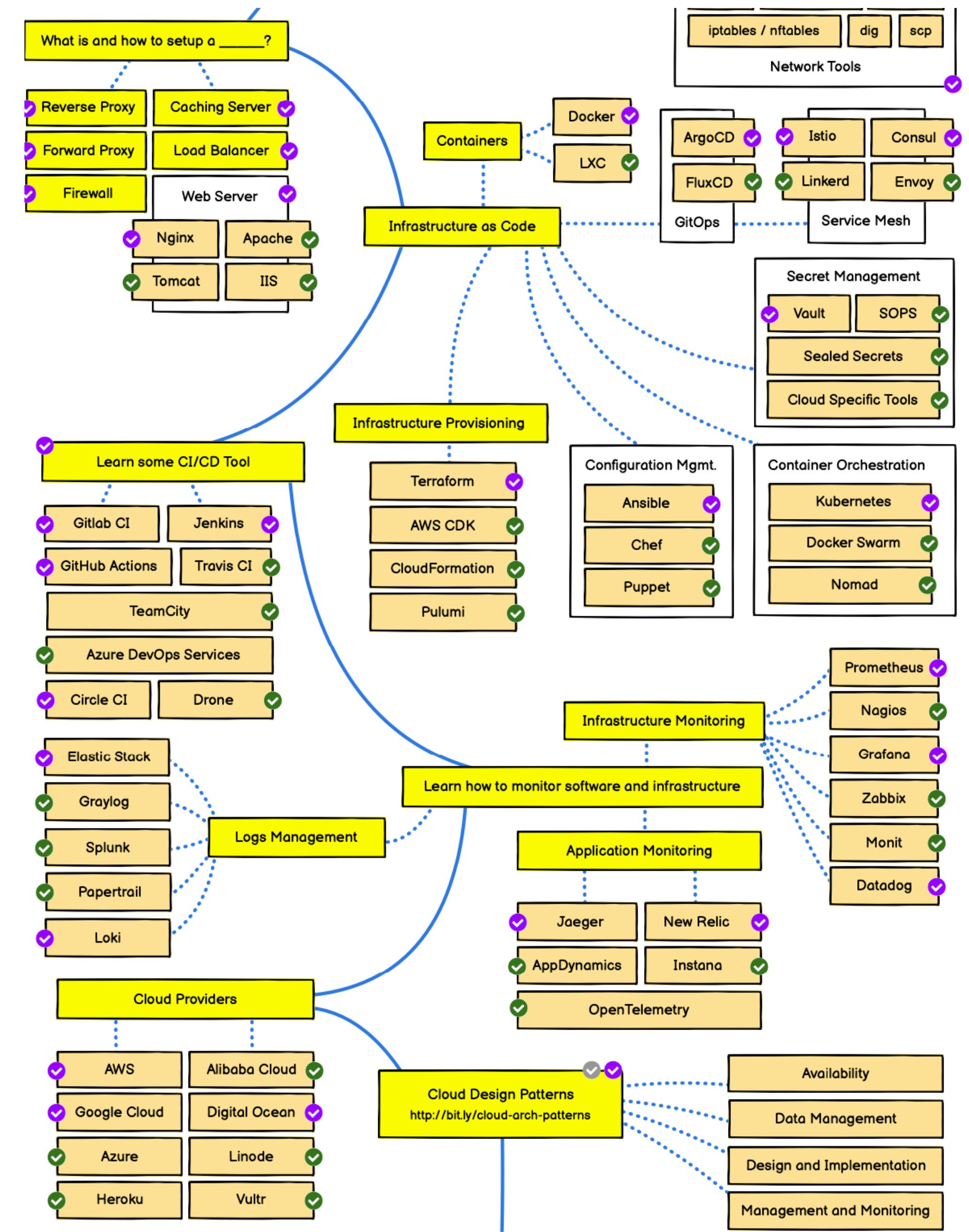
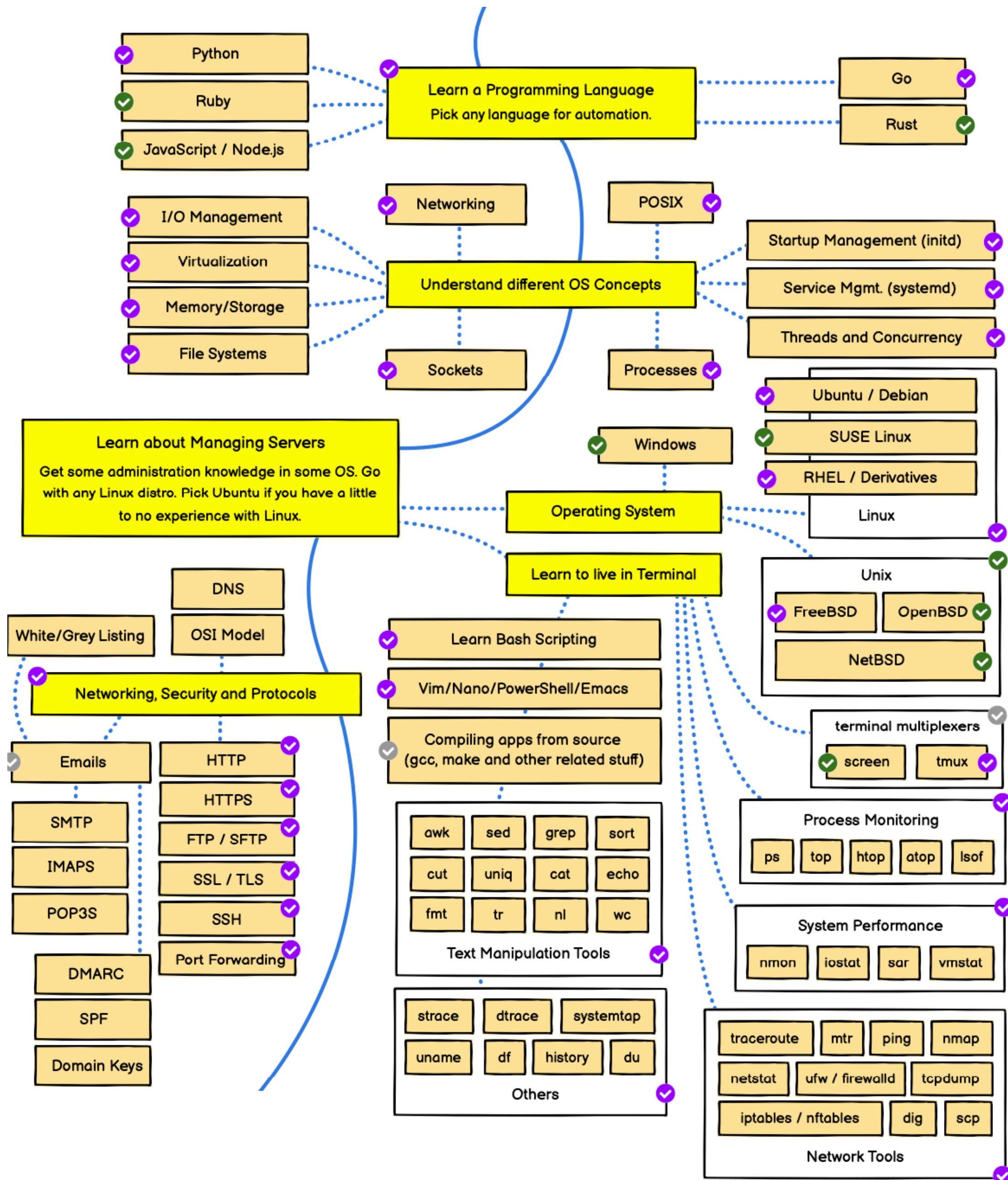


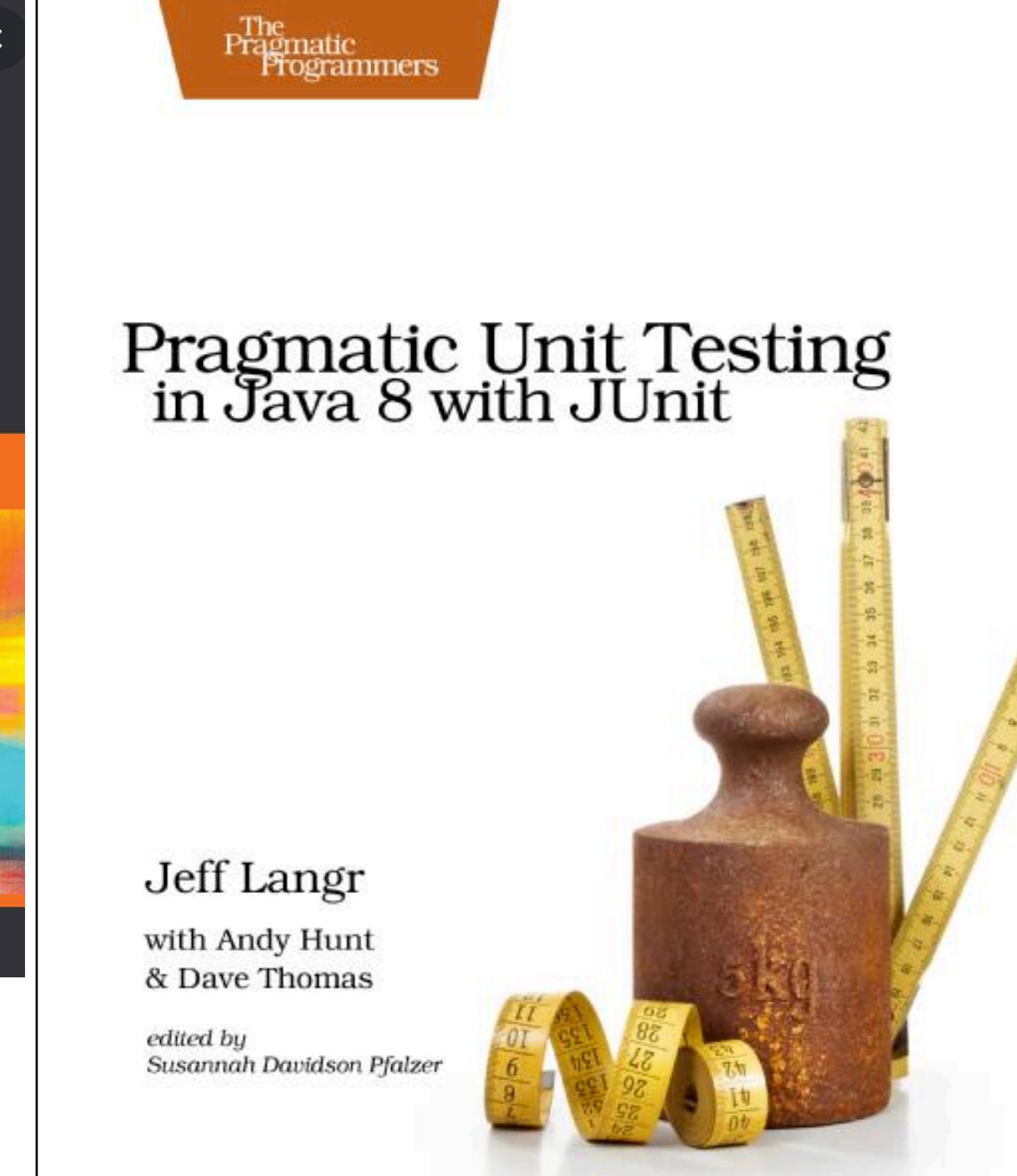
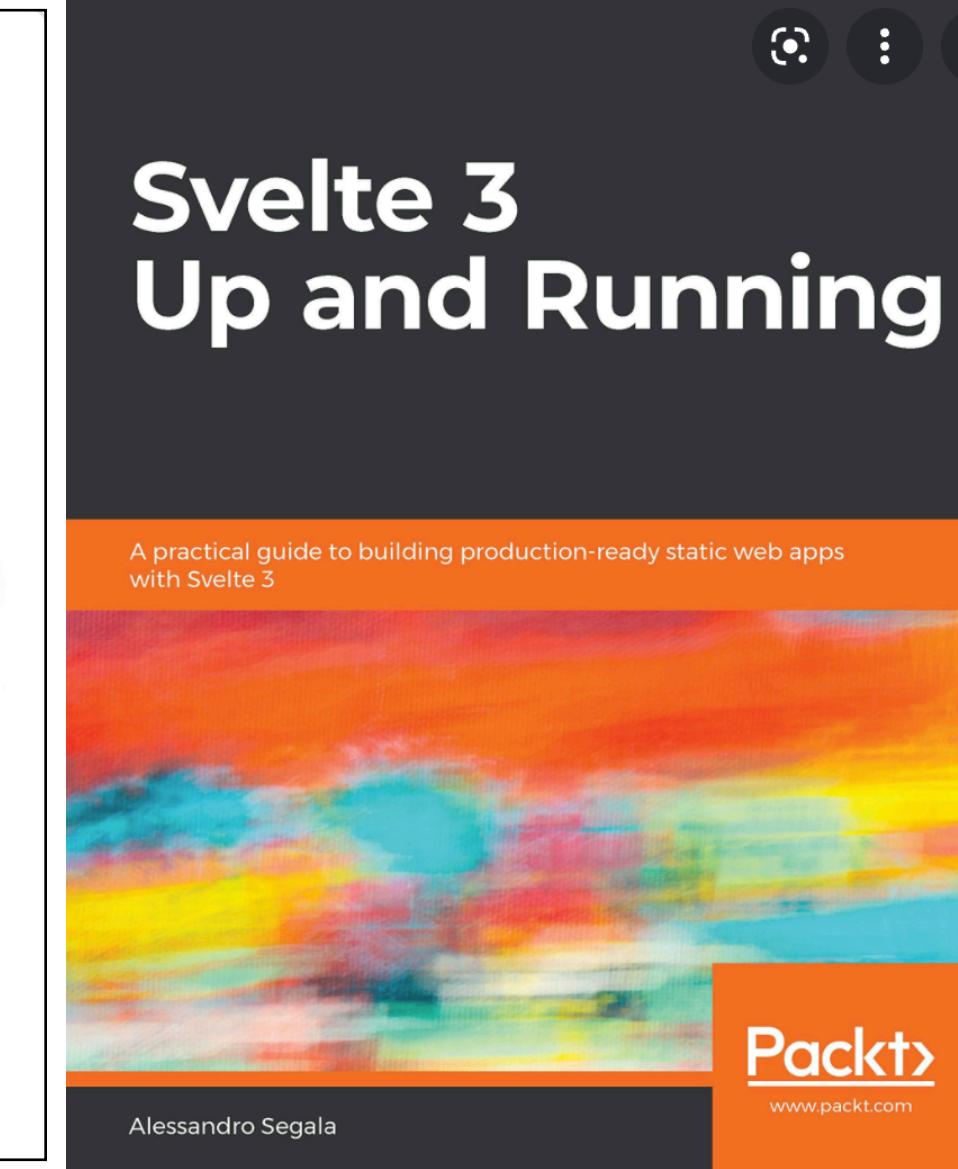
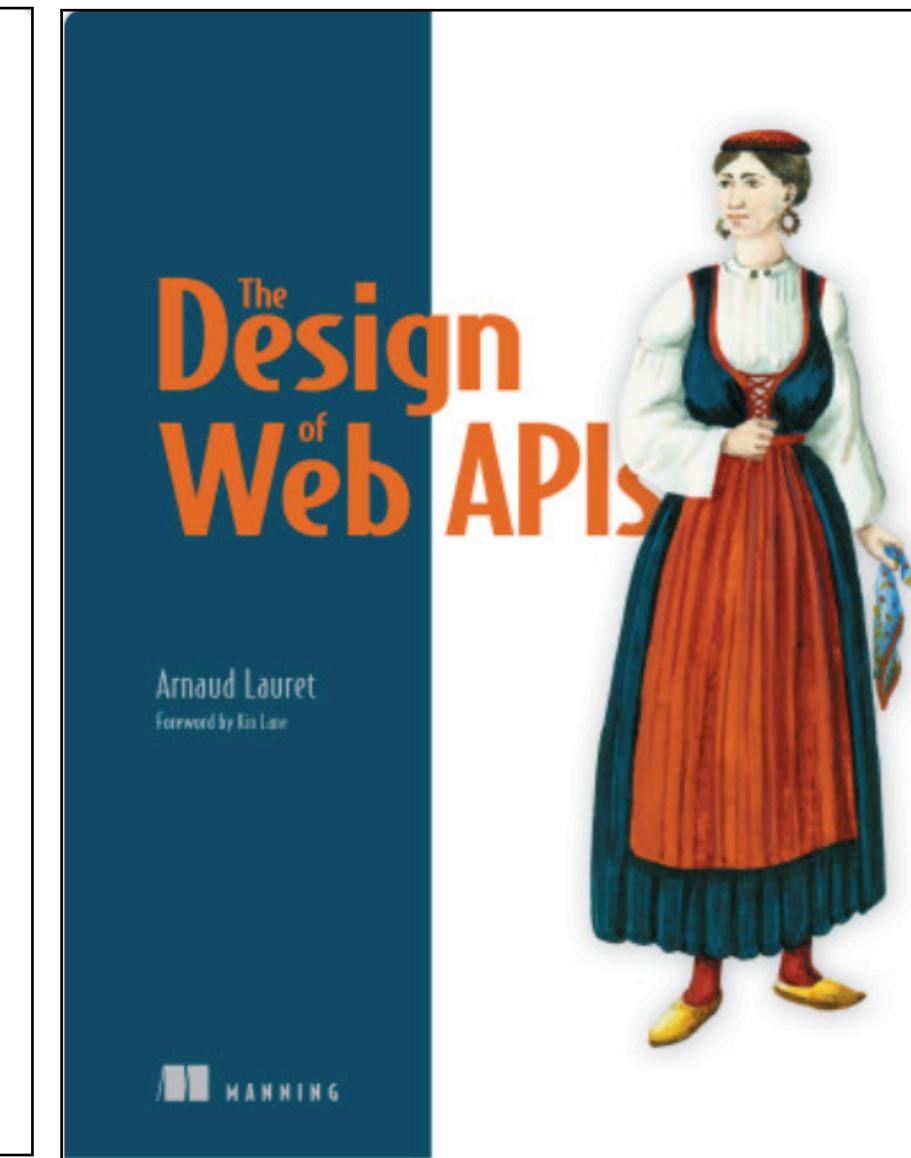
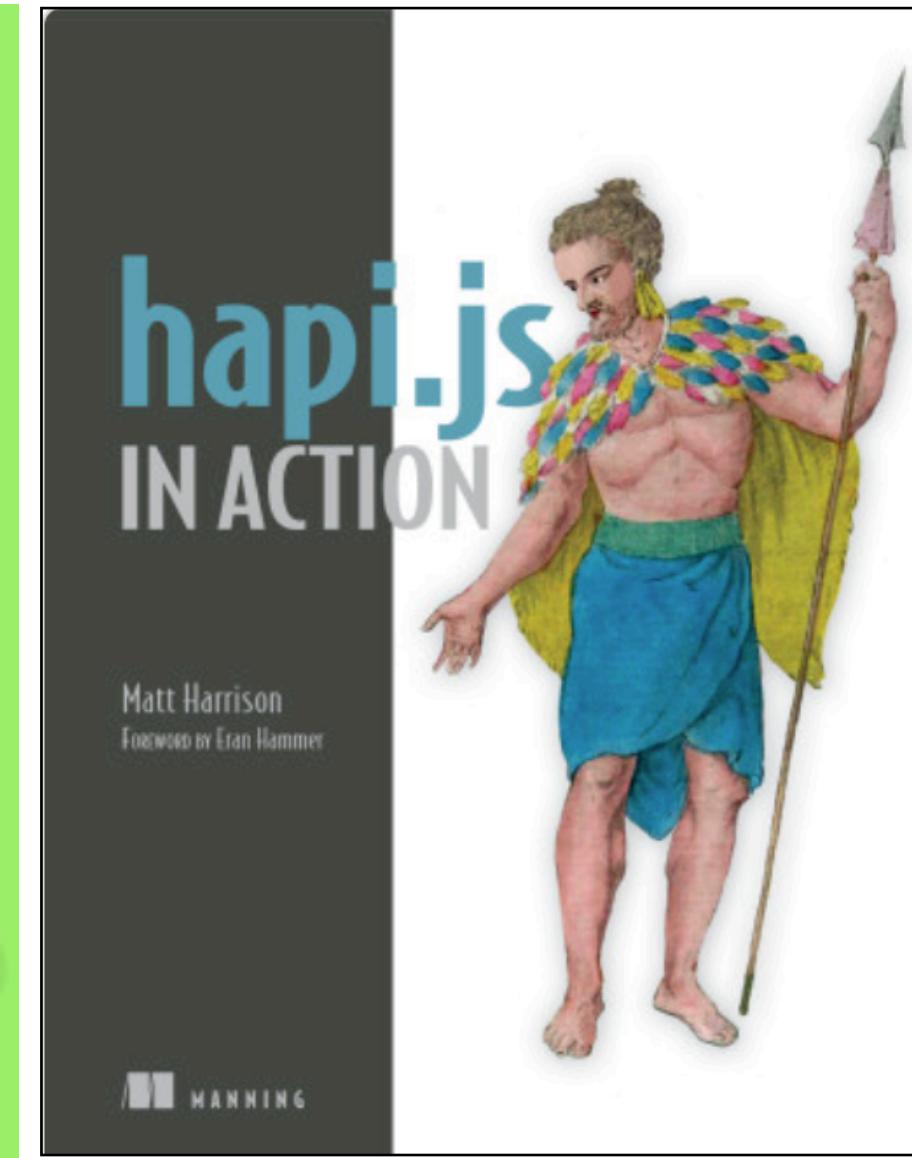
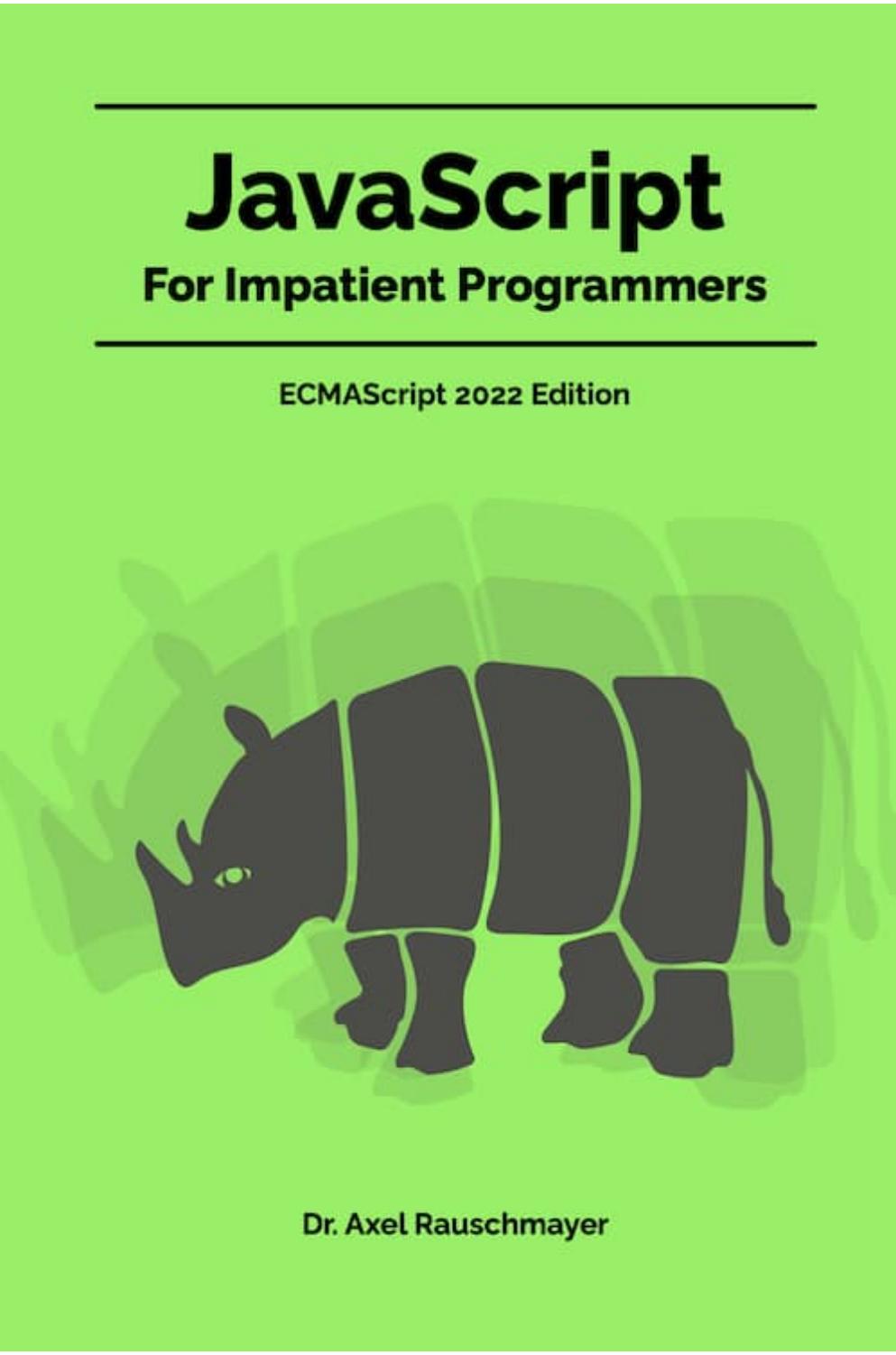
Frontend





Devops





- <https://exploringjs.com/impatient-js/toc.html>
- <https://nodeweekly.com/>
- <https://javascriptweekly.com/>
- <https://frontendfoc.us/>
- <https://svelte.dev/blog>