

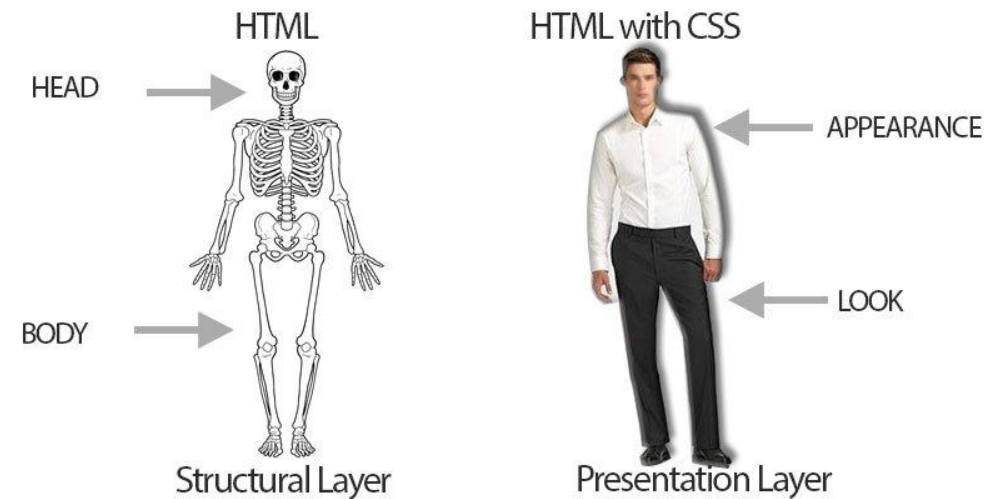


Pemrograman Web

Sirojul Munir | rojulman@nurulfikri.ac.id



- Hal pertama yang harus dipelajari untuk pengembangan web
- Mempelajari struktur bangun blok dari dokumen web
- Apakah ada alternative lain ? Tidak ada (harus dipelajari)
- Seiring waktu harus menguasai (become master)
- Mudah dipelajari (banyak resources)



- Text Editor : Sublime Text / Notepad 2 / Atom.io / IDE
- Image Editing : Gimp, Photoshop, Illustrator & tools lainnya
- FTP/SSH Tool : Filezilla, Putty
- Good Browser : Chrome, Firefox , Opera
- Cloud Storage (optional) : DropBox, Google Drive



- Basic JavaScript (Sebagai pemula lupakan dulu: node.js & framework js)
- Data Types : String , Number , Arrays, Objects ... etc
- Functions, Conditionals, Loops, Operators ... etc
- Event Handling
- JSON
- JQuery (telah mulai terbiasa dengan koding JavaScript):
<https://api.jquery.com>
- JavaScript 6 (JS ES6) : https://www.w3schools.com/js/js_es6.asp

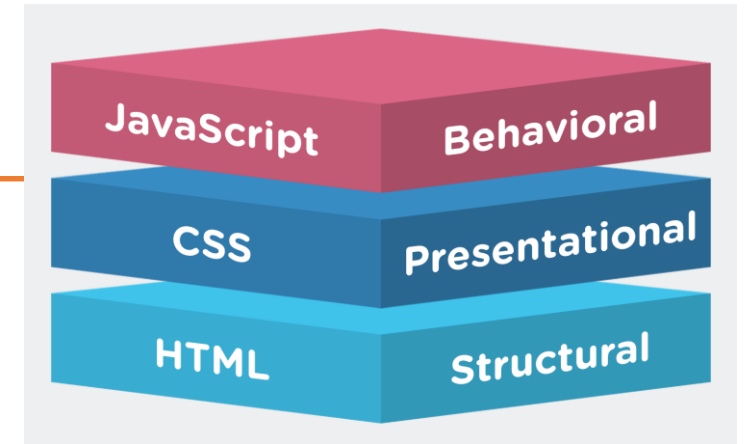


- Buat account hosting (hostgator, inMotion, etc)
- Belajar Basic Cpanel (Email, Setup FTP)
- Upload project web anda ke hosting (FTP)
- Daftar Nama domain dan link-kan dengan account hosting anda
- Akses domain anda via browser

- Buat website sederhana namun bernilai profesional
- Buat antar muka UI (mockup web /page statis/template) untuk aplikasi web
- PSD to HTML/CSS Conversion
- Bekerja di perusahaan atau sebagai freelancer



HTML , CSS & JavaScript



What Next ?



- ✚ Frontend HTML/CSS Framework:
bootstrap, foundation, ..
- ✚ Server Side Language :
PHP, Ruby , JSP (Java), ASP.NET (C#), python ..
- ✚ JavaScript Framework:
React, Angular, Vue.js, ..
- ✚ Database
MySQL, PostgreSQL, MongoDB..

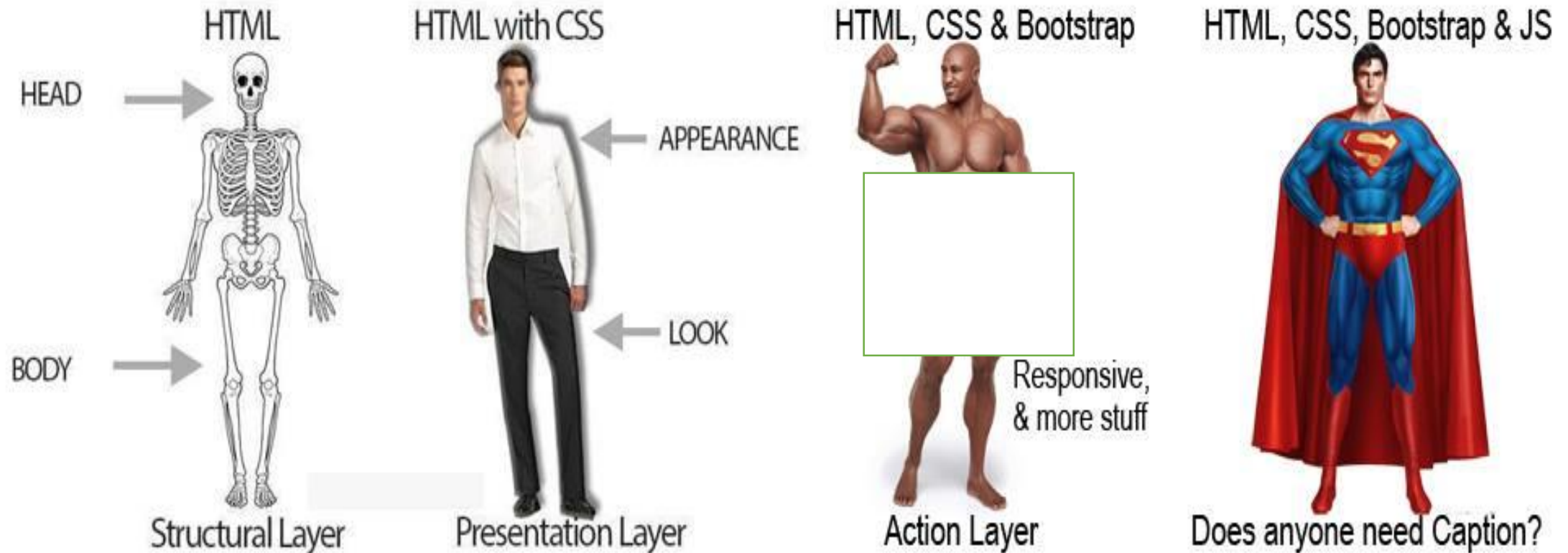
✚ RWD Framework (pilih satu)

- ✚ Twitter Bootstrap
- ✚ Zurb Foundation
- ✚ Skeleton
- ✚ MUI
- ✚ Pure

✚ Material Design

- ✓ CSS Component
 - ✓ Button
 - ✓ Lists
 - ✓ Forms/Inputs
- ✓ Helper Class
- ✓ Grid System
- ✓ Responsive Layout
- ✓ Javascript Widgets

HTML + CSS + Bootstrap + JavaScript




Server Side Programming (Pilih satu)

- ✚ PHP : bukan yang terbaik namun cukup solid
- ✚ Node.js : baru , powerful dan menarik untuk dipelajari
- ✚ Ruby On Rails : Framework bagus (sedang menurun)
- ✚ Python : Mudah dipelajari
- ✚ Servlet/JSP (Java) : Konsep OOP harus kuat
- ✚ ASP.NET + C# : Konsep OOP harus kuat

TopTen Programming Language

2018

Language Rank	Types	Spectrum Ranking
1. Python	  	100.0
2. C++	  	99.7
3. Java	  	97.5
4. C	  	96.7
5. C#	  	89.4
6. PHP		84.9
7. R		82.9
8. JavaScript	 	82.6
9. Go	 	76.4
10. Assembly		74.1

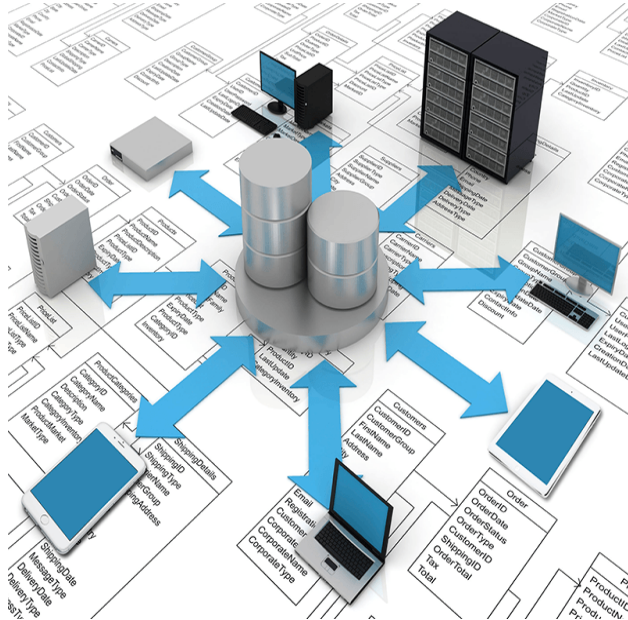
2020

Rank	Language	Type	Score
1	Python ▼	  	100.0
2	Java ▼	  	95.3
3	C ▼	  	94.6
4	C++ ▼	  	87.0
5	JavaScript ▼		79.5
6	R ▼		78.6
7	Arduino ▼		73.2
8	Go ▼	 	73.1
9	Swift ▼	 	70.5
10	Matlab ▼		68.4

Sumber: <https://spectrum.ieee.org/at-work/innovation/the-2018-top-programming-languages>

<https://spectrum.ieee.org/at-work/tech-careers/top-programming-language-2020>

Database (Pilih satu)



Relational Database

- MySQL
- PostgreSQL
- Oracle
- SQL Server

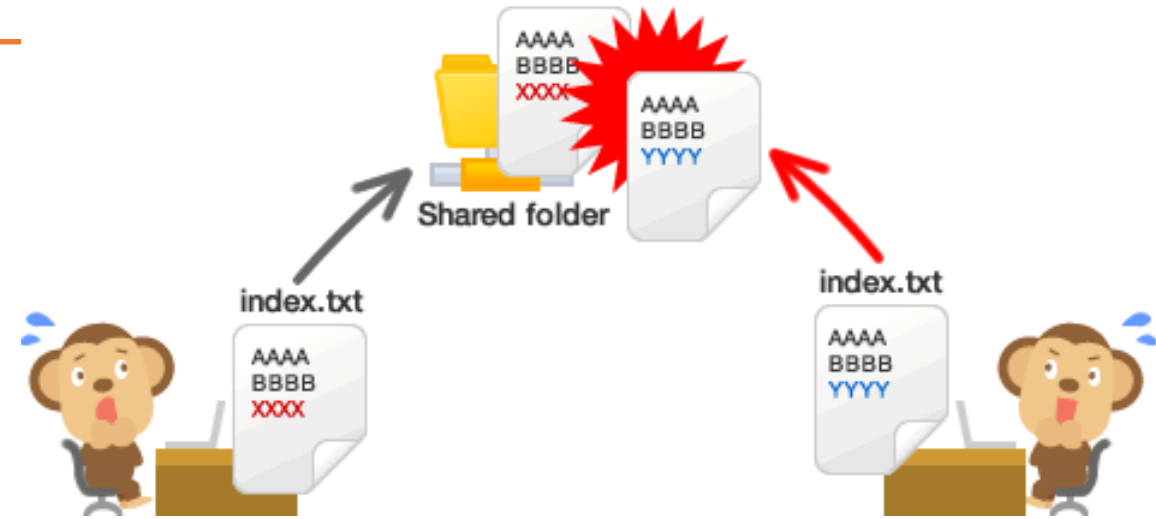
NoSQL

- MongoDB
- CouchDB

- ✓ Pilih satu dan focus:
 - ✓ PHP | MySQL
 - ✓ Node.js | MongoDB

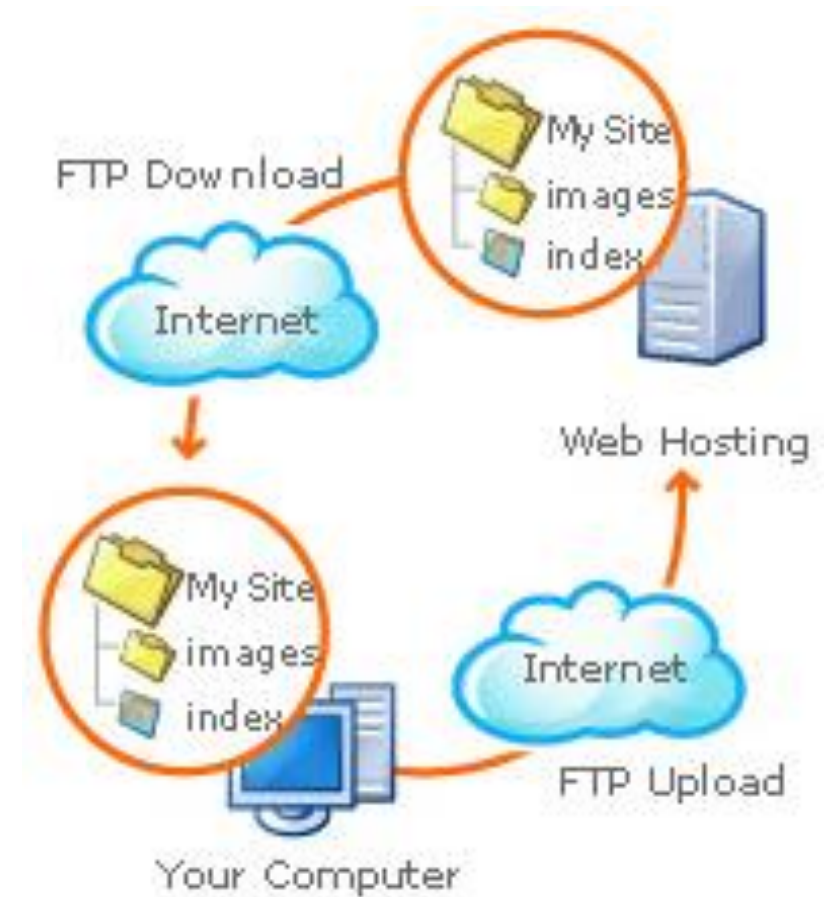
Teknologi lain yang perlu dipelajari

- GIT : Versioning Control & github
- SSH & Basic Command Line
- CSS PreCompilers – Sass / Less
- APIS / REST Web Services / Swagger
- Apache Configuration : htaccess, https, ssl,



Deploying Apps

- Dedicated Server / VPS
- App Hosting – Heroku, DigitalOcean, AWS,
- SSH & Basic Command Line
- CSS PreCompilers – Sass / Less
- APIS / REST Web Services
- Apache Configuration : htaccess, HTTPS, SSL



Anda bisa disebut Web Developer

- ✦ Mampu buat aplikasi web : dari simple ke advanced
- ✦ Mampu buat APIs Backend (Server Side)
- ✦ Mampu bekerja dengan server
- ✦ Admin database
- ✦ Get a great job / Keep freelancer / Start a business



Bermula dari programmer - technopreneur



JavaScript Framework

- ❏ React [Flux, Redux]
- ❏ Angular 2
- ❏ Vue.js
- ❏ Express (backend)

PHP Framework

- ❏ Laravel
- ❏ Yii2
- ❏ CodeIgniter

Ruby On Rails

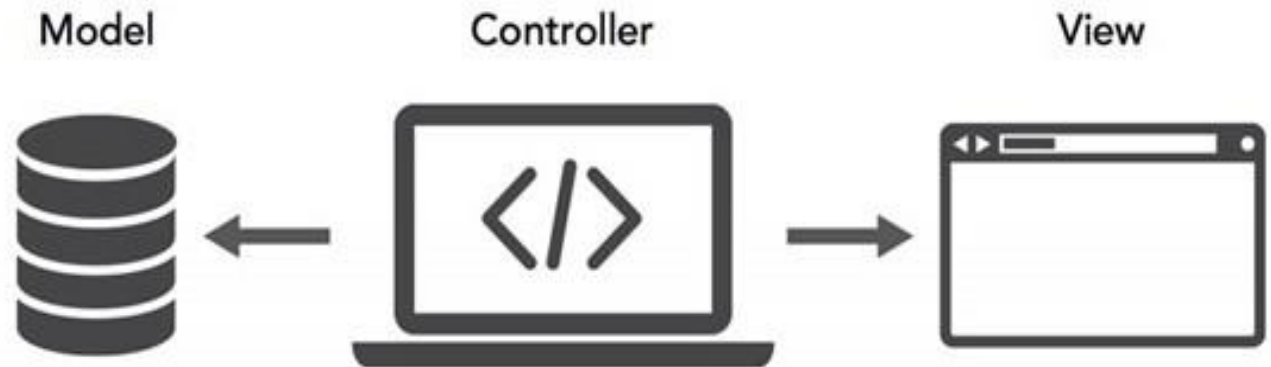
Java Web Framework

- ❏ Spring MVC
- ❏ JSF
- ❏ Vaadin

Python

- ❏ Django
- ❏ CubicWeb
- ❏ Zope2

- Memahami Object Oriented Programming
- Model - View - Controller
 - Routing
 - Database Mapping
 - Helpers
 - Data Binding
 - Template & UI

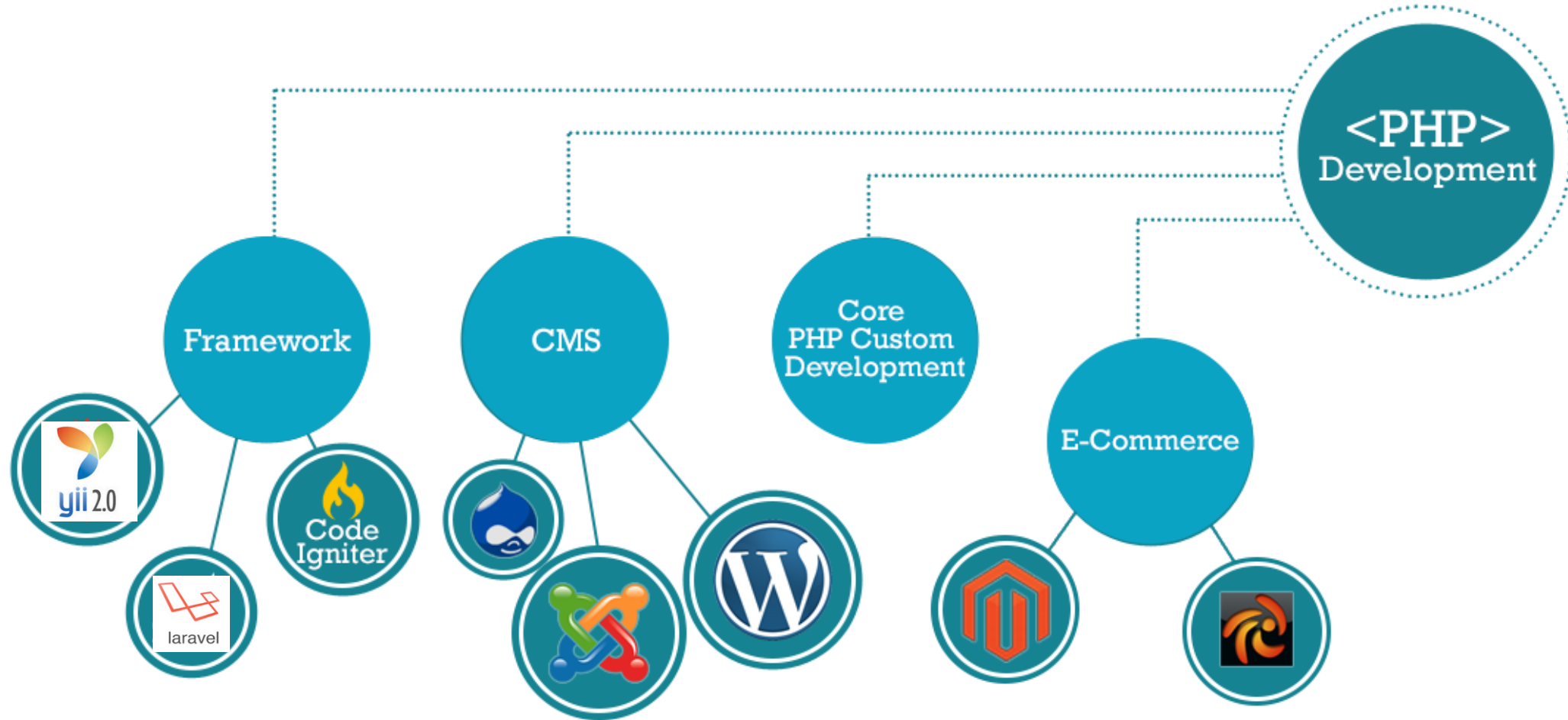


Content Management Systems (PHP)

- ⊕ Wordpress, Joomla, Drupal
- ⊕ Great for client work & maintenance
- ⊕ Thousand of plugins / addons
- ⊕ Fast Development
- ⊕ Can be very limiting



PHP Development



Mobile App Development

- ✿ It's the future
- ✿ You don't need to learn Java / Objective-C
- ✿ Just JavaScript! ... React Native, Ionic , Cordova



Now What?

- Focus on your career
- Go back and learn another stack
- Keep up to date with new technologies
- Learn a high level language (Java, C#)



Sumber:

- Web Development 2017 : channel youtube:
<https://www.youtube.com/watch?v=9hDKfBKuXjI>