Web Backend Development
MSTC Technical Sharing

December 29, 2013

Richard Tsai

Microsoft Student Technology Club,

Sun Yat-sen University

Agenda

Web App Basic Architechture
Frontend & Backend
HTTP

Web Backend Development
Languages, Frameworks and etc.
A "Hello world" Example
Database
Architechture Patterns
Security

Completed Architechture
Case Study: MSTCWEB

Others
Resources

Web Backend
Development

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Architechture

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HTTP

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Languages, Frameworks
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Completed
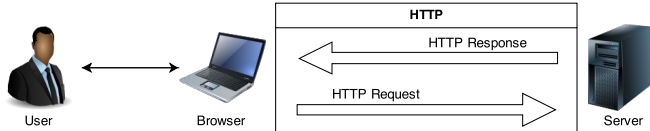Architechture
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Frontend & Backend

Web App Basic Architechture

HTTP

- What's HTTP?

Web App Basic Architechture

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HTTP

- What's HTTP?
- B/S Architechture

User   Browser

HTTP

HTTP Response

HTTP Request

Server

Web App Basic Architechture

HTTP Methods

- GET
- POST

Web App Basic Architechture

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Web App Basic Architechture

Frontend & Backend

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Languages, Frameworks and etc.

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HTTP Methods

- GET
- POST

"Stateless"

- Cookies
- Session

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HTTP Status Code

- ▶ 200 OK
- ▶ 301 Move Permanently / 302 Found / 303 See Other
- ▶ 404 Not Found
- ▶ 500 Internal Server Error

Web Backend Development

Languages, Frameworks and etc.

Python	Flask, Django, Bottle, . . .
Ruby	Ruby on Rails
CLI Langs[1]	ASP.NET MVC Framework
JavaScript	Node.js, Meteor, . . .
PHP	Zend Framework, ThinkPHP, LazyPHP, . . .
~~Java~~	~~Spring, JFinal, Struts, . . .~~

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[1] C#, VB.NET, C++/CLI, etc.

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Database
Structured Query Language (SQL)

```
INSERT INTO `tbl` (`name`, `grade`) VALUES ('wodesuck', 2012)
DELETE FROM `tbl` WHERE `name` = 'wodesuck'
SELECT `id`, `name`, `grade` FROM `tbl` WHERE `grade` = 2012
UPDATE `tbl` SET `grade` = 2013 WHERE `id` = 10
```

Web Backend Development

Architechture Patterns

²Image from Wikipedia

Web Backend Development

Architechture Patterns
Model-View-Controller (MVC)

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[2] Image from Wikipedia
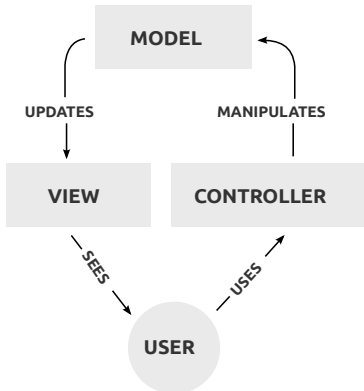
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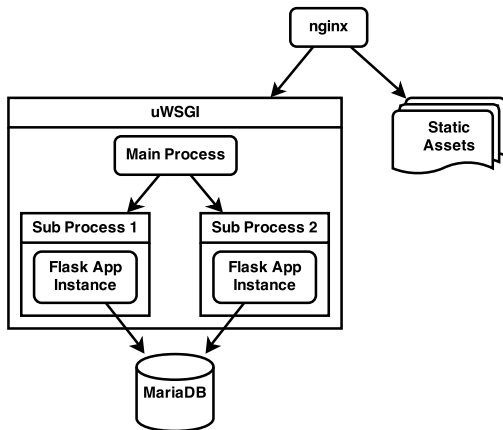Case Study: MSTCWEB

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Security

- ► SQL Injection
- ► XSS
- ► CSRF
- ► etc.

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Completed Architechture

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Others
Resources

Others

Tools

- Chrome Developer Tools
- phpMyAdmin

Others

Tools

- Chrome Developer Tools
- phpMyAdmin

Deployment Platform

- Physical Server, VPS and IaaS
- PaaS

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Others

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W3School**s** http://w3school**s**.com

W3School http://w3school.com.cn

MDN https://developer.mozilla.org