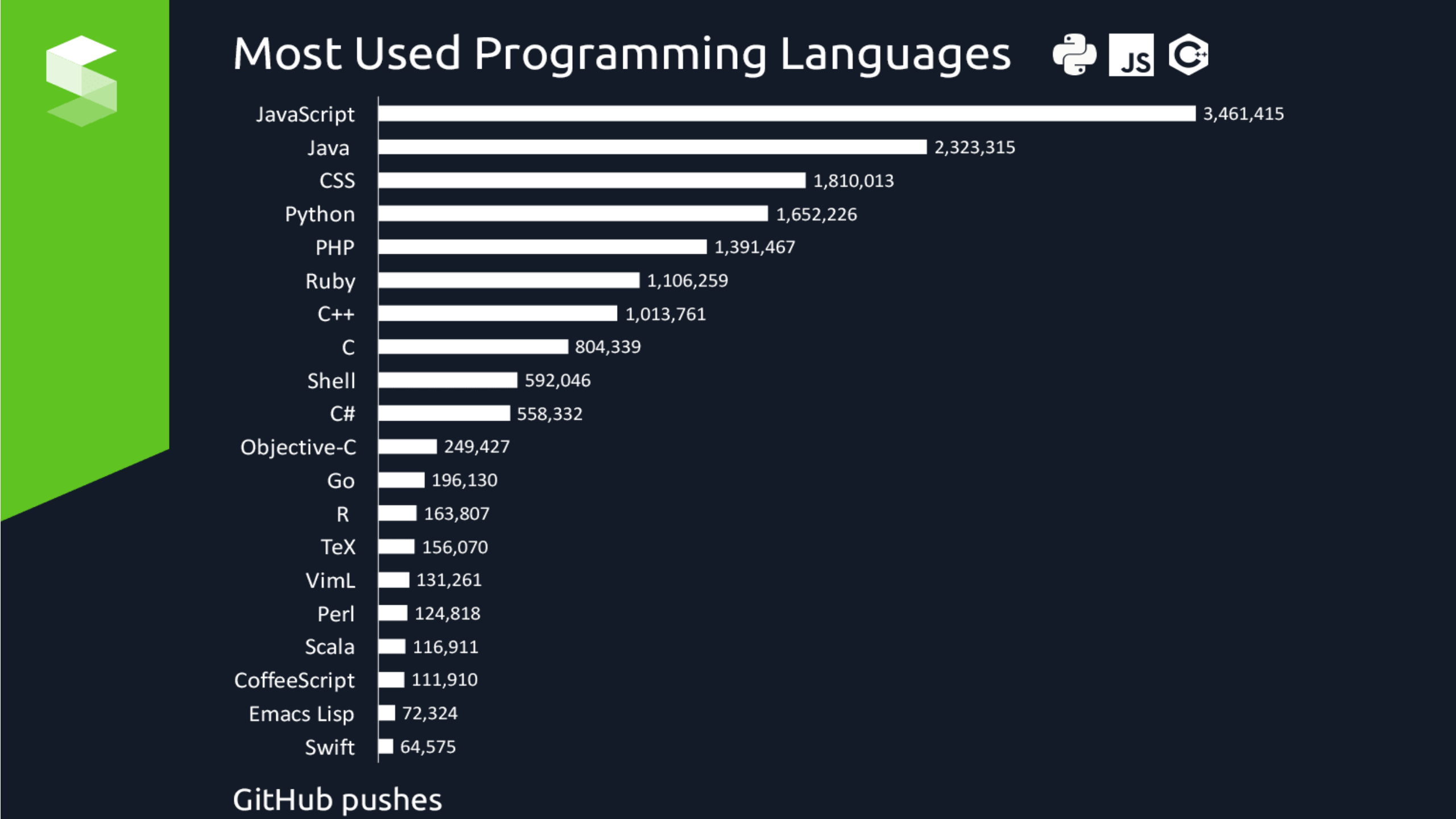
MODULAR DEVELOPMENT
WITH CODEIGNITER

Author: Nanda Reynaldi

Most Used Programming Languages



GitHub pushes

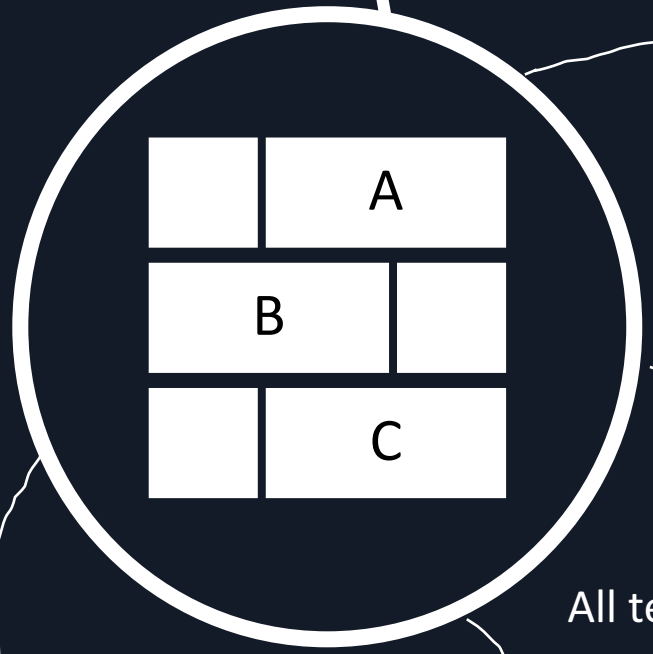
WHAT IS MODULAR DEVELOPMENT ?

Modules in modular programming enforce logical boundaries between components and improve maintainability. They are incorporated through interfaces. They are designed in such a way as to minimize dependencies between different modules. Teams can develop modules separately and do not require knowledge of all.

AMIKOM VIRUS COMMUNITY

THE DIFERENCE

Monolithic



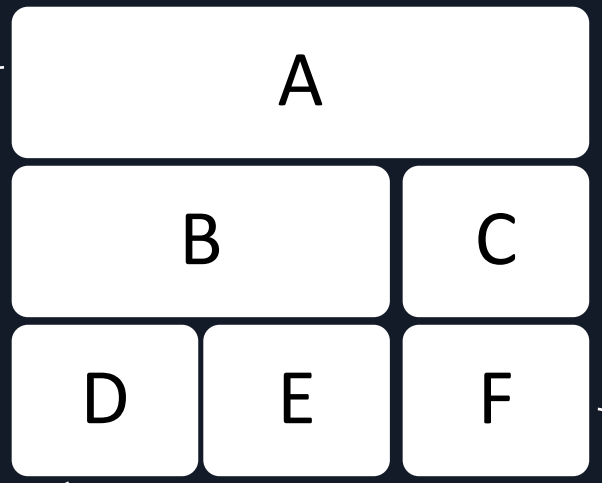
Extra Maintenance

All team must know them

One error, everything is error

fixing bugs or add new bugs?

Modular



They just need to know they modules

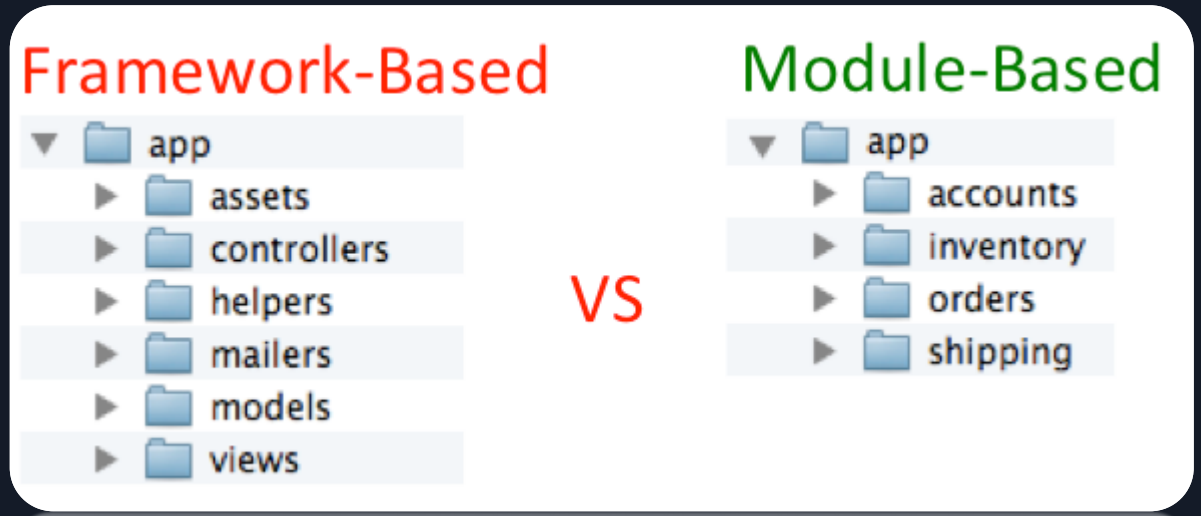
Easy Maintenance

Don’t worry to fixing bug

Don’t worry if some modules error

AMIKOM VIRUS COMMUNITY

THE DESIGN



AMIKOM VIRUS COMMUNITY

WHATS WRONG WITH MONOLITHIC ?

Scary

Difficulties code grows

Complicated

Loss of agility over time

Not for large systems

Leaked

AMIKOM VIRUS COMMUNITY

WHY MODULARITY ?

Reducing Complexity

Easy to code grow

Small and Focused

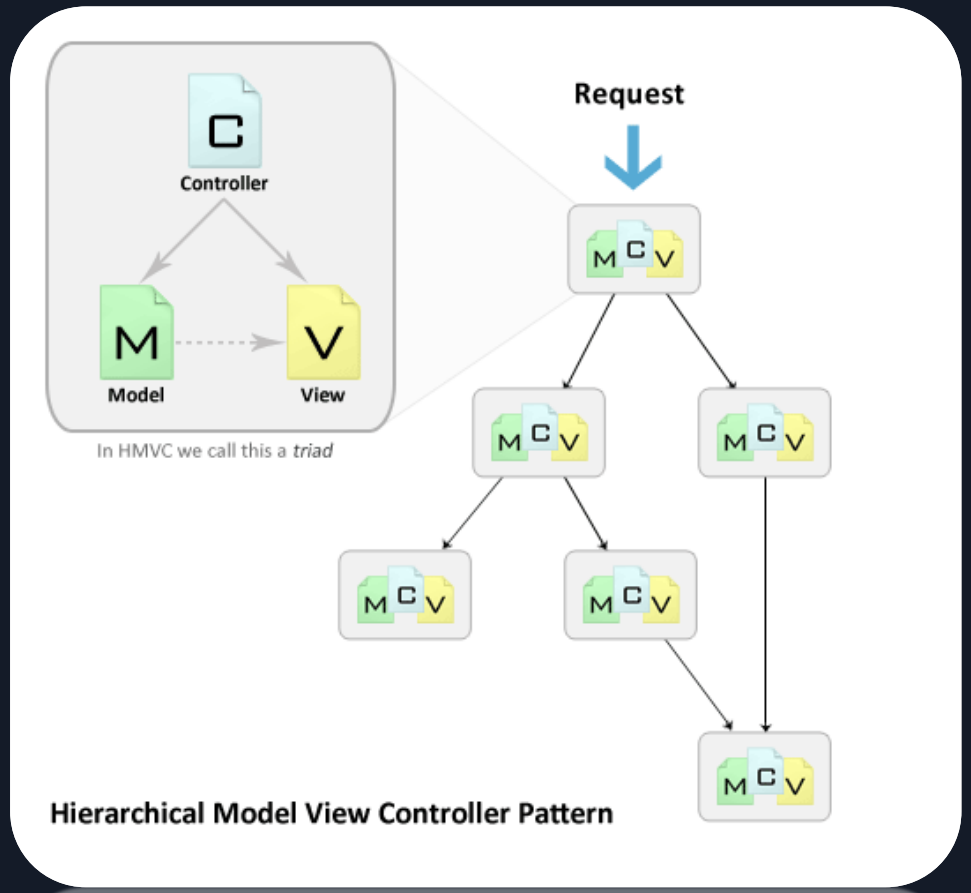
for Large System

Teams can work and scale independently.

AMIKOM VIRUS COMMUNITY

AMIKOM VIRUS COMMUNITY

CODEIGNITER FOR MODULARITY WITH HMVC



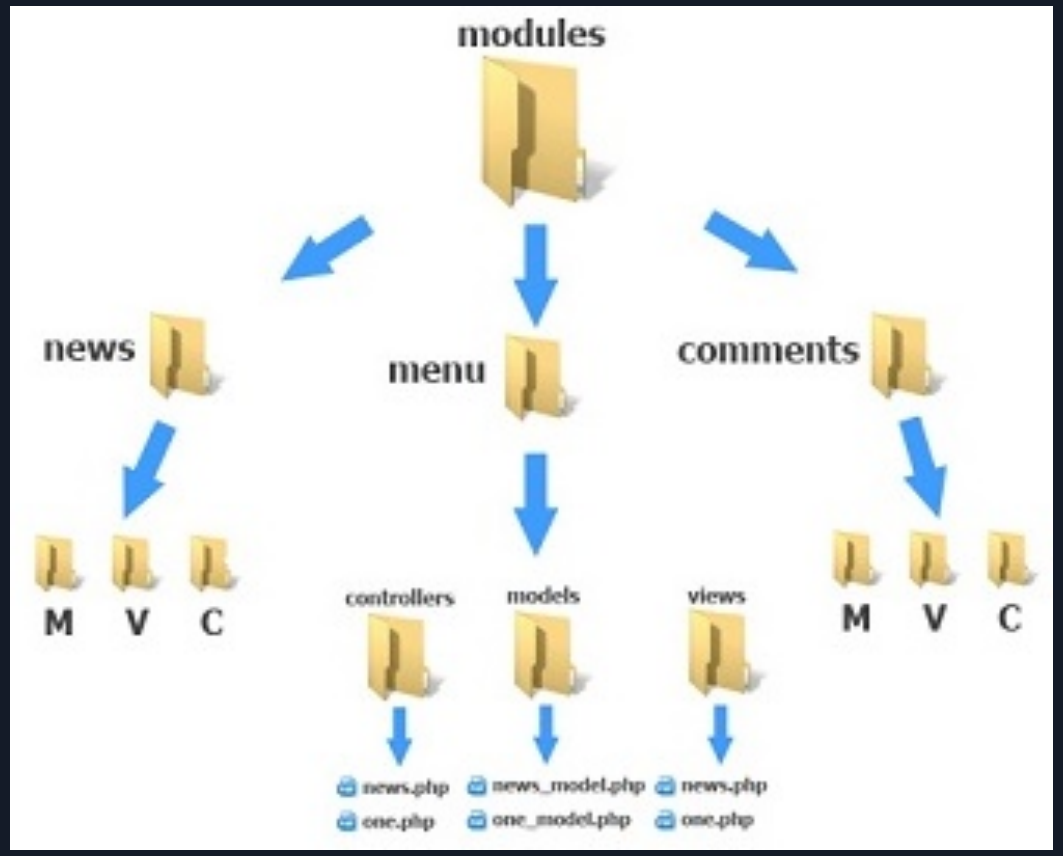
AMIKOM VIRUS COMMUNITY

MODULARITY MODEL IN CODEIGNITER

NO HIERARCHY

- Applications
  - Controller
    - Adminsitrator
      - Authentication
      - Article
      - Slider
    - User
      - Authentication
      - Article
      - Comments

HIERARCHY MVC (HMVC)



AMIKOM VIRUS COMMUNITY

Prerequisites

+

Modular Extensions - HMVC

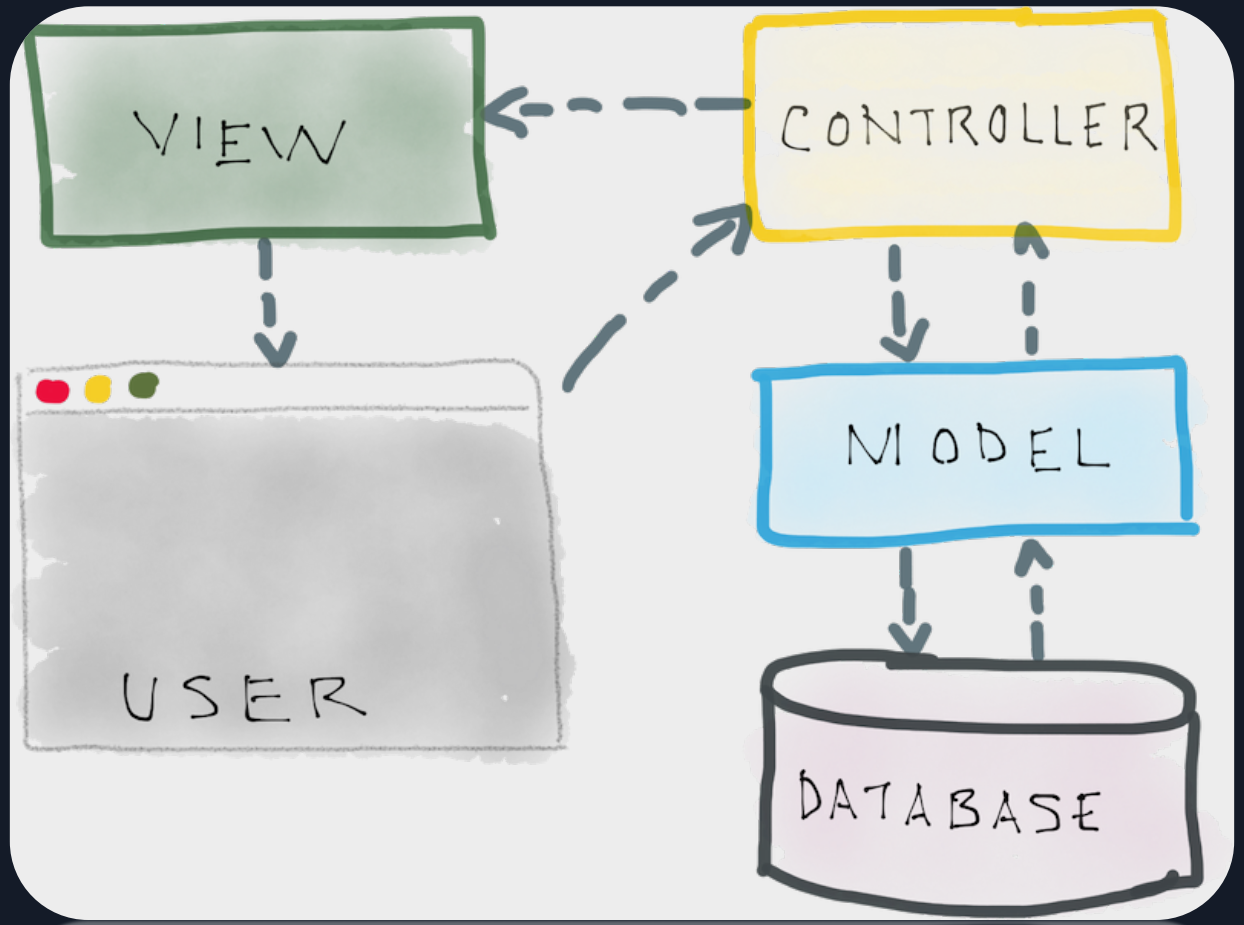
AMIKOM VIRUS COMMUNITY

HMVC Tutorial Reference

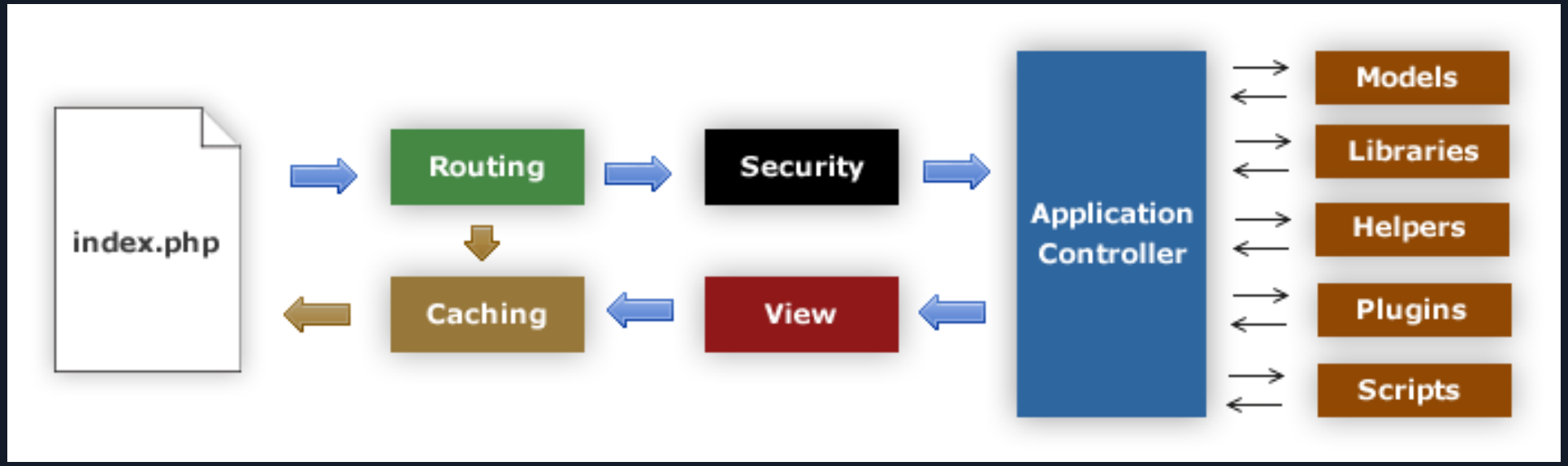
1. http://jadirkomariah.blogspot.co.id/2015/10/penerapan-hmvc-pada-framework.html
2. https://star-solution.co.id/informasi/detailartikel/8/tutorial-php-dan-codeigniter-crud-dan-ajax.html
3. http://www.roytuts.com/setup-hmvc-with-codeigniter-3/

AMIKOM VIRUS COMMUNITY

MVC Concept



AMIKOM VIRUS COMMUNITY



AMIKOM VIRUS COMMUNITY

Style Guide

Controllers

Models

Modul Folder name is lowercase (non-capital)
The first Controller name letter is capitalized
The first Class name letter is capitalized
Extends with CI_Contoller

View

Modul Folder name is lowercase (non-capital)
All file name is lowercase (non-capital)

AMIKOM VIRUS COMMUNITY

Style Guide
File Naming

somelibrary.php
someLibrary.php
SOMELIBRARY.php
Some_Library.php
Application_config.php
Application_Config.php
applicationConfig.php

Somelibrary.php
Some_library.php
applicationconfig.php
application_config.php

AMIKOM VIRUS COMMUNITY

Style Guide
Class and Method Naming

class superclass
class SuperClass

class Super_class

AMIKOM VIRUS COMMUNITY

Style Guide
Function Naming

function fileproperties()
function fileProperties
function getfileproperties
function getFileProperties
function get_the_file_properties_from_the_file

function get_file_properties()

AMIKOM VIRUS COMMUNITY

ANY QUESTION ?

AMIKOM VIRUS COMMUNITY

Download Tools (Amikom Network Only)

172.16.102.16

Username & Password: kodingin

AMIKOM VIRUS COMMUNITY

STEP 1

Default Configuration. Change your base_url and Database Configuration

AMIKOM VIRUS COMMUNITY

STEP 2

Load Auto Load in Application -> autoload.php

```
*/
$autoload['libraries'] = array('database', 'session','upload','user_agent',
'form_validation', 'recaptcha');
```

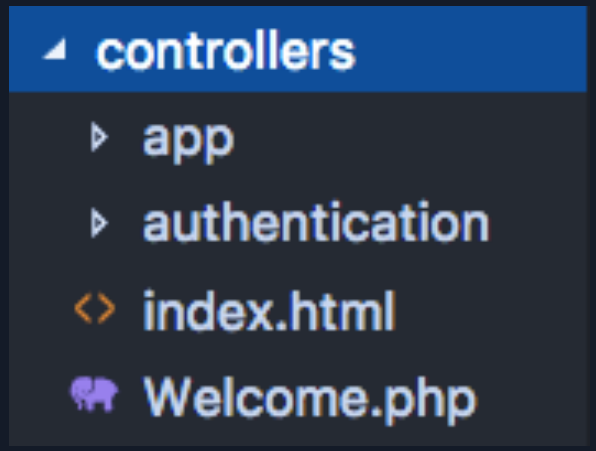
Load helper, auto load in Application -> autoload.php

```
$autoload['helper'] = array('url', 'form');
```

AMIKOM VIRUS COMMUNITY

STEP 3

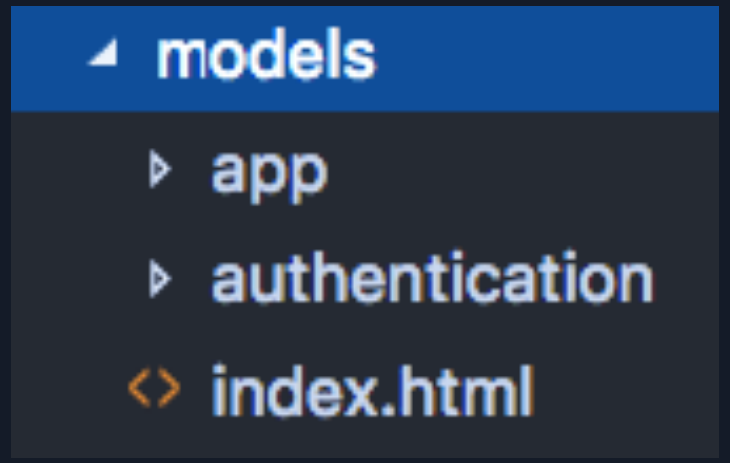
Create 2 Modules folder on Controller folder:
app, and authentication



AMIKOM VIRUS COMMUNITY

STEP 4

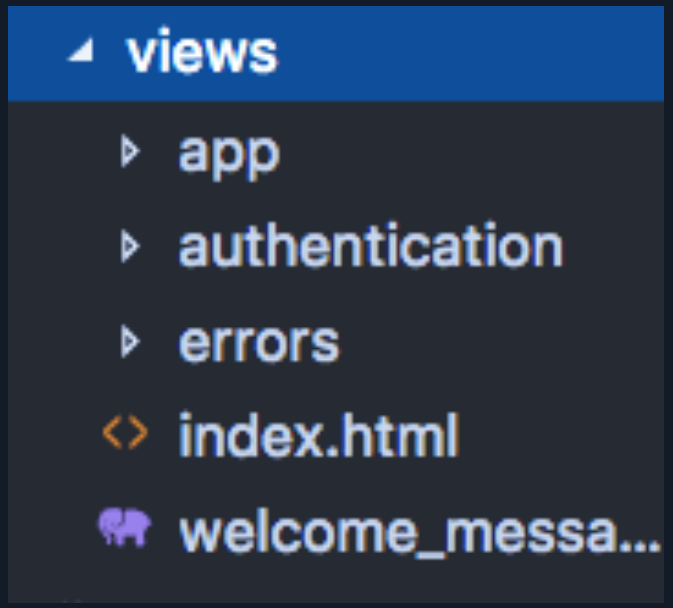
Create 2 Modules folder on Models folder:
app, and authentication



AMIKOM VIRUS COMMUNITY

STEP 5

Create 2 Modules folder on Views folder:
app, and authentication



AMIKOM VIRUS COMMUNITY

STEP 6

Create Login.php in Contollers->authentication folder

Create Dashboard.php in Contollers->app folder

Repeat it on Modules and View Folder

AMIKOM VIRUS COMMUNITY

STEP 8

LET’S CODING !!!

AMIKOM VIRUS COMMUNITY

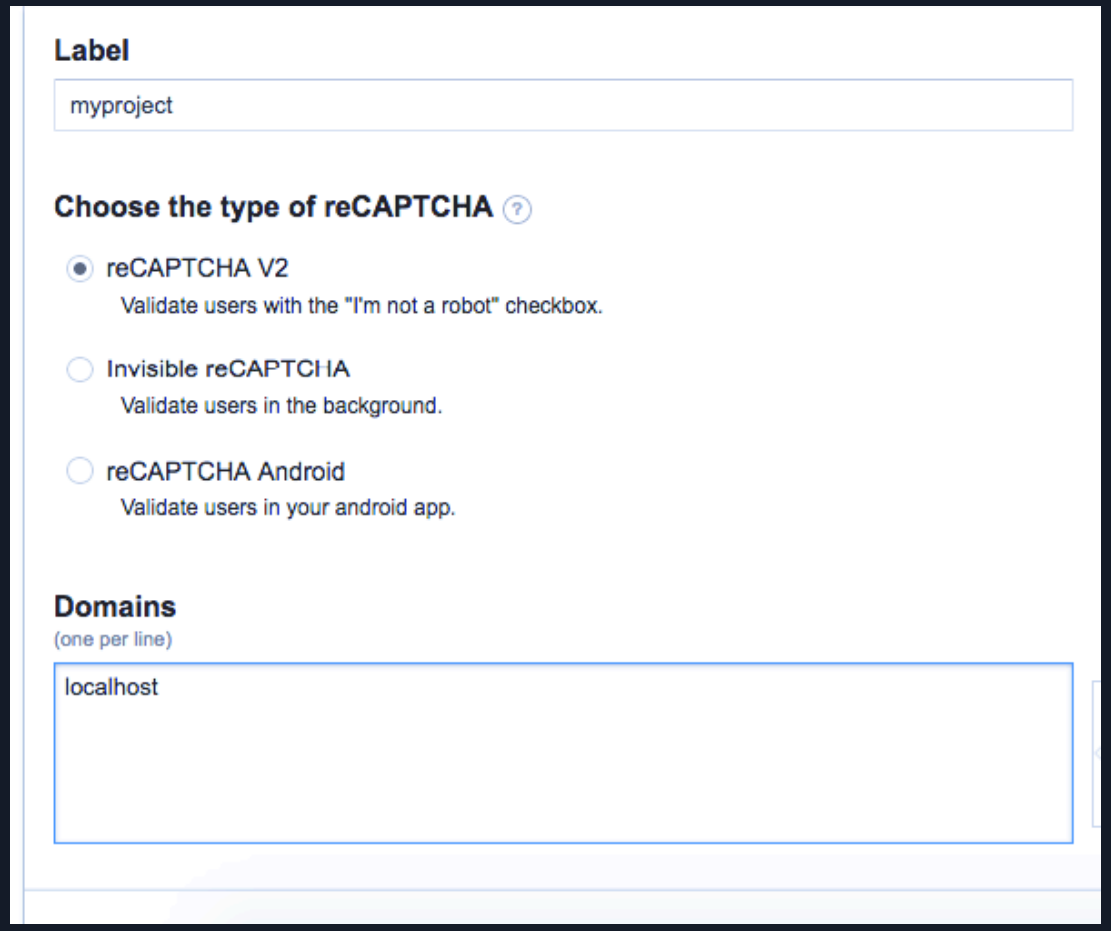
STEP 9

Register and Get Recaptcha Key
https://www.google.com/recaptcha/i

AMIKOM VIRUS COMMUNITY

STEP 10

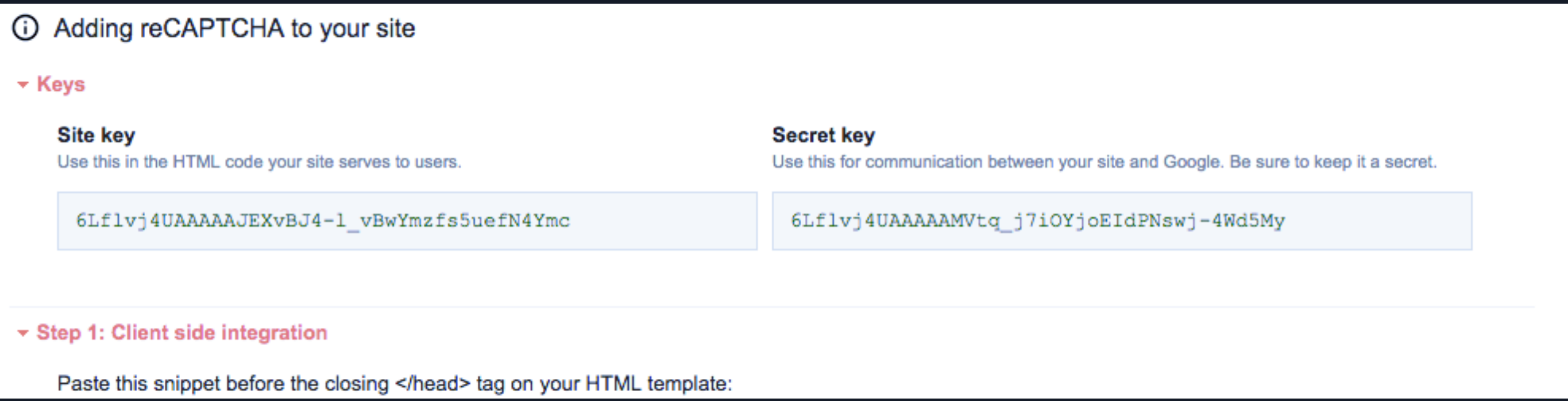
Register your recaptcha



AMIKOM VIRUS COMMUNITY

STEP 11

Copy Site key and Scret key to application->config->recaptcha.php



AMIKOM VIRUS COMMUNITY

STEP 12

Copy Site key and Scret key to application->config->recaptcha.php

```
$config['recaptcha_sitekey'] = "COPY HERE - AMIKOM VIRUS";
$config['recaptcha_secretkey'] = "COPY HERE - AMIKOM VIRUS";
$config['lang'] = "id";
```

AMIKOM VIRUS COMMUNITY

STEP 13

Load your login page

AMIKOM VIRUS COMMUNITY