WELCOME!

WORKSHOP

SYNOD COLLEGE
BCA Department

3rd Nov., 2023

WE

CODIGION

IT, Software and Solution

We lead our clients through the realms of Software Development, Security, and A.I., forging new technological frontiers.

codigion.com

Weaver

PHP Framework

SHOWCASE

Open-Source

github.com/codigion/weaver

Architecture

Model View Controller (MVC)

application's data and business logic

presenting the data to the user

an intermediary between the Model and the View

LET'S SPEAK IN

‹Code/›

WE INVITE YOU TO
Fork, Play & Contribute

DEPLOYMENT

Unleash the power of our creations!

HANDS-ON

THE BOX
Ubuntu 22.04

Let's acquaint ourselves with a few commands before we venture further.

SSH (Secure Shell) is a secure network protocol for securely connecting to and managing remote systems.

ssh [<USERNAME>]@[<PUBLIC IP or DOMAIN>]

VI is a powerful and efficient text editor for Unix-based systems.

vi [<FILENAME>]

OTHERS

LS, CD, APT, RM and more later

CheatSheet

tinyurl.com/codigion-cheatsheet

Server Setup

//get to root environment
sudo su –

//refreshes the package database
apt update

//install PHP and it's dependencies
apt –y install php8.1–cli php8.1–common php8.1–fpm php8.1–mysql

//install NGINX – a high–performance open–source web server and reverse proxy server used to serve web content and manage network traffic.
apt –y install nginx

//install MySQL
apt -y install mysql–server

//install Certbot – a command–line tool for automatically obtaining and renewing SSL/TLS certificates to enable secure, encrypted connections on web servers.
apt –y install certbot python3–certbot–nginx

Clean-up defaults!

//Deletes the contents of the web server's document root.
rm -rf /var/www/html

//Removes the default Nginx configuration file.
rm -rf /etc/nginx/sites-available/default

//Deletes the symbolic link to the default Nginx configuration
rm -rf /etc/nginx/sites-enabled/default

Clone your code!

Clones the 'weaver' repository from the 'Codigion' GitHub account to your local machine, creating a copy of the project for local development.

cd /var/www
git clone https://github.com/Codigion/weaver

Git is a distributed version control system for tracking changes in source code during software development.

Get inside database!

```
//Enter MySQL
mysql

//Creates a new database named "weaver."
CREATE DATABASE weaver;

//Creates a user named "weaver" who can connect from the "localhost" and uses the password
"weaver@O98" for authentication.
CREATE USER "[<USERNAME>]"@"[<HOST>]" IDENTIFIED BY "[<PASSWORD>]";
Example: CREATE USER "weaver"@"localhost" IDENTIFIED BY "weaver@123";

//Grants all privileges on the "weaver" database to the user "weaver" when connecting from the "localhost."
GRANT ALL PRIVILEGES ON [<DATABASE>].* TO "[<USERNAME>]"@"[<HOST>]";
Example: GRANT ALL PRIVILEGES ON weaver.* TO "weaver"@"localhost";

//Reloads the user privileges to ensure the changes take effect immediately.
FLUSH PRIVILEGES;

//Exit
exit
```

Prepare to go LIVE!

Weaver Configuration

//Create environment for Weaver project
vi /var/www/weaver/Configurations/.env

```
## Environment
ENVIRONMENT=development

## MySQL Configuration
MYSQL_HOST=localhost
MYSQL_USERNAME=weaver
MYSQL_PASSWORD=weaver@123
MYSQL_DATABASE=weaver

## Mailer Configuration
SENDER_EMAIL=
SENDER_PASSWORD=

## Project Information
PROJECT_NAME=Project Name
```

Open access to the world!

```
server {
    //Listens on port 80 for HTTP requests and treats this
    server block as the default server.
    listen 80 default_server;
    //Specifies the domain name or IP address for which this
    server block will handle requests.
    server_name [<DOMAIN OR IP ADDRESS>];
    //Sets the document root directory to "/var/www/weaver,"
    where web content is served from.
    root /var/www/weaver;
    //Defines the order in which index files (index.php and
    index.html) are looked for when accessing a directory.
    index index.php index.html;

    //Handles requests to the root path ("/") and performs a URL
    rewrite for friendly URLs.
    location / {
        rewrite ^/([^/]+)$ /?url=$1 last;
    }

    //Manages requests for PHP files, passing them to the PHP-
    FPM server for processing.
    location ~ \.php$ {
        include fastcgi_params;
        fastcgi_pass unix:/var/run/php/php8.1-fpm.sock;
        fastcgi_param SCRIPT_FILENAME
$document_root$fastcgi_script_name;
    }

    //Blocks access to hidden files and folders (those starting
    with a dot) for security.
    location ~ /\. {
        deny all;
    }
}
```

←

//Create nginx Server Block file
vi /etc/nginx/sites-available/weaver

//Create symbolic link to active for the web server to use
ln -s /etc/nginx/sites-available/weaver /etc/nginx/sites-enabled/

//Restart Nginx Server
systemctl restart nginx

Secure, a little!

//Set the owner and group of the /var/www/weaver directory and its contents to www-data to grant web server permissions
chown -R www-data:www-data /var/www/weaver

//Change the directory's permissions to 700, which restricts access to only the owner while securing the web application.
chmod -R 700 /var/www/weaver

//Install SSL Certificate
certbot --nginx -d [<DOMAIN NAME>]

Example: *certbot --nginx -d weaver.codigion.com*
Note: In "/etc/nginx/sites-available/weaver", replace IP with Sub-Domain Name.

SIGN YOUR

‹Code/›

CONVERSATIONAL AI

Realm of Artificial Intelligence

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Weaver

BUG BOUNTY

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https://codigion.com/geekternship

THANK YOU

Have any question?

Write us at contact@codigion.com!