

# Crowdfunding System WithLaravel Framework and VPS

*By Evi Triandini*

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## Crowdfunding System With Laravel Framework and VPS

PutuAdiGuna Permana<sup>1</sup>, Evi Triandini<sup>2</sup>

1(Computer System, ITB STIKOM Bali, putuadi\_guna@stikom-bali.ac.id)

2 (Computer System, ITB STIKOM Bali, evi@stikom-bali.ac.id)

### Abstract:

Information Technology is growing rapidly, business actors have started to use a lot of website media in developing their businesses. Many new domains have sprung up which are business people developing business promotion on the internet. Business opportunities have begun to be in demand among young people but not most of them are able to carry out their business due to capital constraints. Crowdfunding is the practice of raising funds from a large number of people to capitalize on a project or business that is generally carried out through the internet. Web based crowdfunding system with laravel framework and virtual private server will strengthen security from the application and data side. Virtual Private Server (VPS) is a cloud-based computing where data and systems are stored all in one private account instead of shared hosting that is commonly used. This system was built to make it easier for business people who have minimal capital but can still run a business.

**Keywords** — *technology, crowdfunding, laravel, vps.*

### I. INTRODUCTION

The development of computer technology from time to time continues to experience improvement and development. This is supported by the development of increasingly advanced and adequate technology. Making it possible to create and develop various applications, which make information accessible quickly, precisely, current and accurate. Business actors have started marketing their products through internet media.

Crowdfunding is the practice of raising funds from a large number of people to capitalize on a project or business that is generally carried out through the internet. In this case the investor with a business to be financed will be established directly through the intermediary crowdfunding. Through this crowdfunding, business actors can finance the desired business even though they only have minimal capital, because in this crowdfunding system, business actors are invited to join together to build a business. The profit earned by the business actor will remain the same as the capital invested.

Based on this problem by analyzing these symptoms, then a web-based Crowdfunding system with a laravel framework and a virtual private server will strengthen security in terms of application and data. Virtual Private Server (VPS) is a cloud-based computing where data and systems are stored all in one private account instead of shared hosting that is commonly used. This system was built to make it easier for business people who have minimal capital but can still run a business. The products that will be invited to work together are businesses that have passed strict risk mitigation, are already running and are profitable. With the existence of this Laravel framework adds insight into the php frameworks that have sprung up a lot, as well as how to implement them in the form of a business that can be useful for both individuals and the community. Whereas VPS (Virtual Private Server) helps in cloud computing where all applications will be installed in VPS and accessed with a high level of security.

### II. METHOD OF RESEARCH

#### A. Setting and Installation

Laravel is a PHP framework that is starting to become popular because of its translation and users. How to install Windows / OS X is very easy by installing the composer. Before installing the maker, download the file at <https://getcomposer.org/download/> and make sure your PC / laptop has XAMPP installed because it requires PHP built-in.

How to Install on OS X:

```
php -r "copy('https://getcomposer.org/installer', 'composer-setup.php');"
php -r "if (hash_file('sha384', 'composer-setup.php') === '93b54496392c062774670ac18b134c3b3a95e5a5e5c8f1a9f115f203b75bf9a129d5daa8ba6a13e2cc8a1da0806388a8') { echo 'Installer verified'; } else { echo 'Installer corrupt'; unlink('composer-setup.php'); } echo PHP_EOL;"
php composer-setup.php
php -r "unlink('composer-setup.php');"
mv composer.phar /usr/local/bin/composer
```

For the test composer installed please type "composer" then enter.

How to Install on OS Windows :

Open the link <https://getcomposer.org/Composer-Setup.exe>, then follow the installation instructions to complete, if you have finished the test composer has been installed please type "composer" then enter.

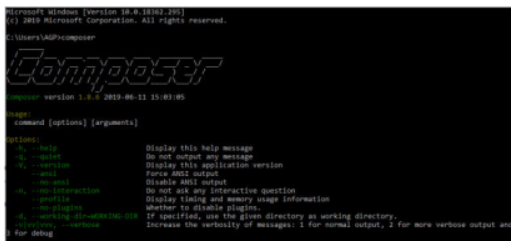


Fig 1 Composer Running

Start using laravel by creating a project:

```
composer create-project --prefer-dist laravel/laravel crowdfunding_system
```

**create-project** is used for Commands to create new projects

**--prefer-dist** to order the download of the recommended version of the stable or the stable version (newest).

**crowdfunding\_system** is the name of the laravel project that we want to create.

To run the laravel application we have made use of:

```
php artisan serve
```

### B. Software Spesification

The Laravel framework has a few system requirements. Of course, all of these requirements are satisfied by the Laravel Homestead virtual machine, so it's highly recommended that you use Homestead as your local Laravel development environment.

However, if you are not using Homestead, you will need to make sure your server meets the following requirements:

- PHP >= 7.1.3
- OpenSSL PHP Extension
- PDO PHP Extension
- Mbstring PHP Extension
- Tokenizer PHP Extension
- XML PHP Extension
- CType PHP Extension
- JSON PHP Extension

### C. Application Development Methodology

A project with Scrum method begins with a depiction of the system that will be done. Then the Project Owner depicts the business process or plan into a Product Backlog(Pham, Pham et al. 2011). Product Backlog is a list of plans that must be done by the team.

There is a term in Scrum called the Sprint. Sprint is the goal to be achieved in the next scrum sprint (30 days ahead). Each Sprint starts with a Sprint Meeting Planing which is an activities to determine what kind of sprint to do next. Every day, each team gather together and discuss "What has been done since the last Daily Scrum Meeting?", "What problems are encountered during the work?", And "What will be done for the next scrum?"(Opelt and

Books24x7 Inc. 2013). The meeting will be chaired by the Scrum Master and at the end of the sprint there will be a meeting for 4 hours to do a demo against everything that has been done.



Fig 2 Scrum Methodology Flow

The research steps starts from the Development Preparation, maximize the writer/researcher study of literature for a deeper comprehension of the Scrum Method on a project.

Besides the study of literature, author will also do consultations with the people who have been involved directly in Scrum to find information related to the challenges and obstacles during the process. The study also gives the knowledge about the Scrum framework and its implementation on the software development project management.

### III. DISCUSSION

#### D. Design and Implementation

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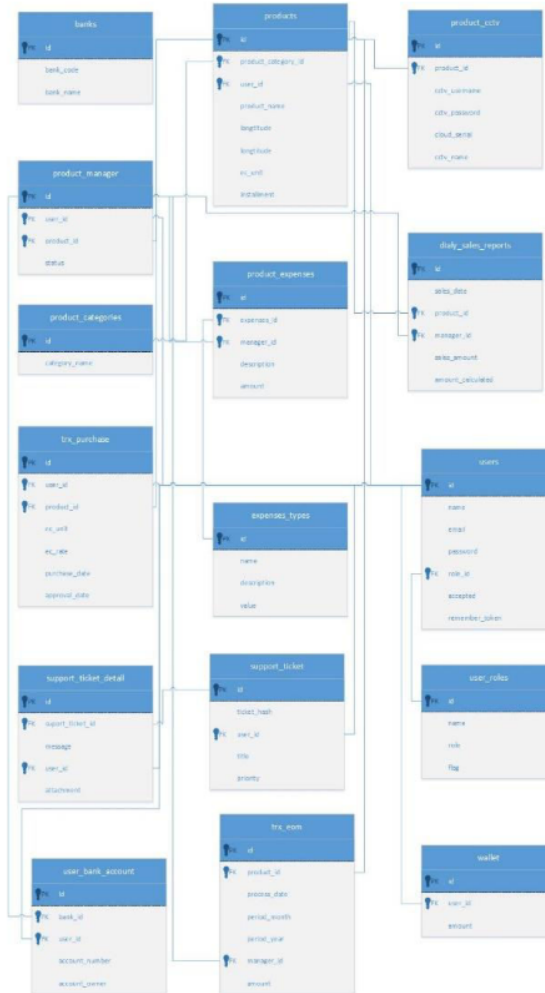


Fig 3 ERD Crowdfunding System

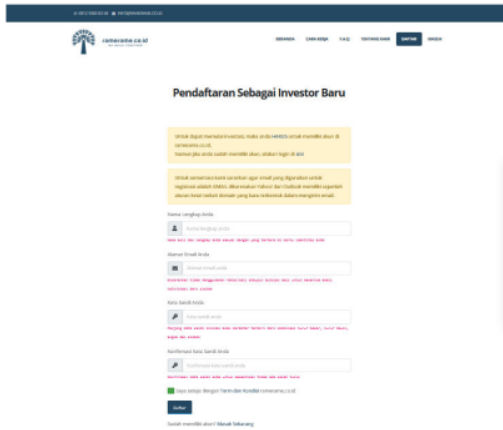
TABLE 1  
ENTITY RELATIONSHIP DIAGRAM (ERD) CROWDFUNDING

No	Menu	Description
1	Banks	Table of List Bank Account
2	Products	Table for Product Launch on crowdfunding
3	Product_cctv	Table for information access cctv camera
4	Product_manager	Table for List Manager on Product Maintenance
5	Product_expenses	Table for expenses detail product
6	Daily_sales_report	Table used record transaction per days
7	Product_category	Table for list type product
8	Trx_purchase	Table for purchase product per customer

9	Expenses_type	Table list expenses type
10	Users	Table for user information and detail
11	Support_ticket	Table for track record problem customer
12	Support_ticket_detail	Tabel detail for record problem
13	User_roles	Table of User Access
14	User_bank_account	Table of Account Number Bank User
15	Trx_eom	Table transaction end of month
16	Wallet	Table for amount customer wallet

**E. Application User Interfaces**

This registration page is used for members or prospective entrepreneurs who want to invest in crowdfunding. after registration the investor will get an email for verification. Here is how it looks:



**Fig 4 Register Form**

This main page can be opened by anyone, on this page will display a brief description of the crowdfunding system, products to be financed, current information about crowdfunding, partners and contacts of the crowdfunding manager, The following are the main pages of the crowdfunding system:



**Fig 5 Crowdfunding Layout System**



This login page is used by members or entrepreneurs to enter the system, if the member forgets the password, then you can go through the "Forgot password" link to get a password reset. Following appearance:

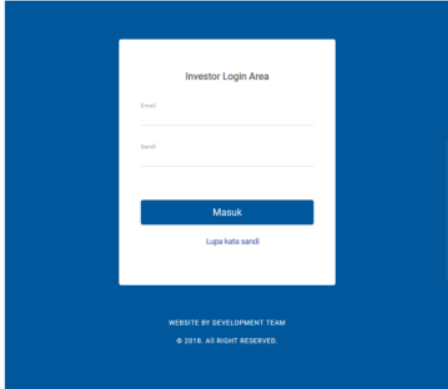


Fig 6 Login Form

This Dashboard page is used to find out what facilities are obtained by members, such as: Transactions, Reports, Profiles, Security, Tickets, and others. This page is also informed directly on the front page of the Wallet Balance and Investment Products that have been followed. Following appearance:

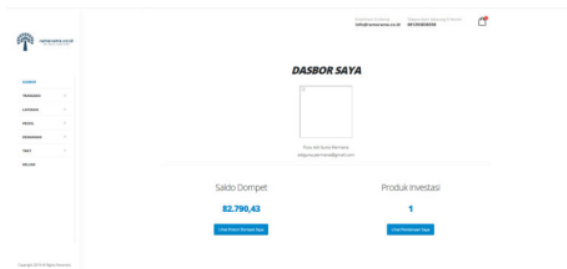


Fig 7 Dashboard Form

The Profit Graph page displays the amount of profit that has been received during the business and is immediately simulated in graphical form, with the following appearance:



Fig 8 Profit Graphich

This personal profile page is used to change and complete personal data such as Personal Profile, Business Profile and Account. Here is how it looks:

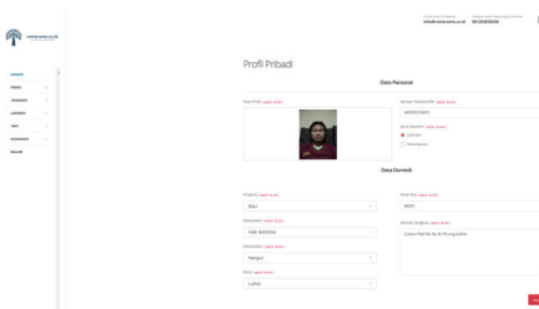


Fig 9 Personal Profile

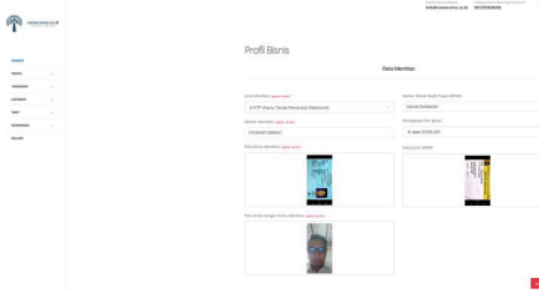


Fig 10 Bussiness Profile

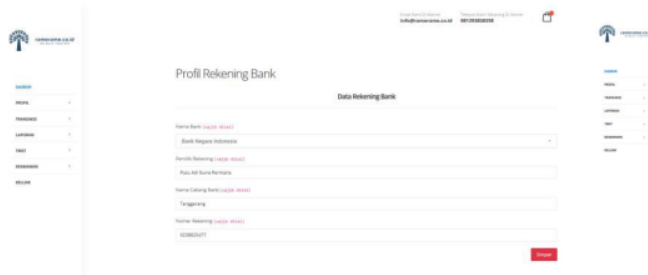


Fig 11 Bank Profile User



Fig 14 Submit Ticket

This Transaction page is used for deposit balances and withdrawal balances from the wallet. Here is how it looks:

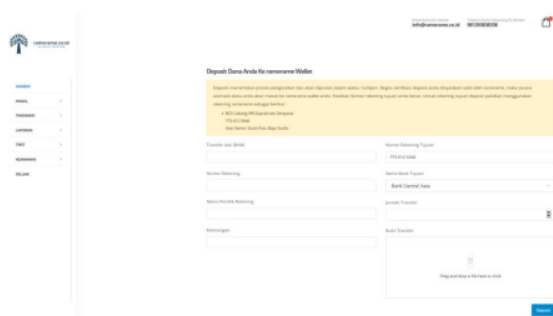


Fig 12 Wallet Deposit

Ubah Sandi page is used for members who want to change their previous password to a new one. Here is how it looks:

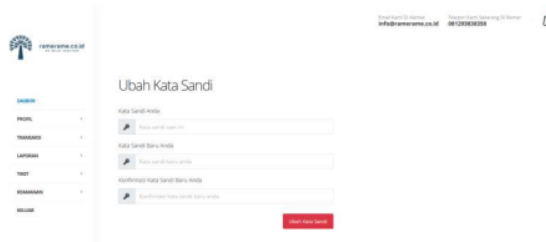


Fig 4 Change Password

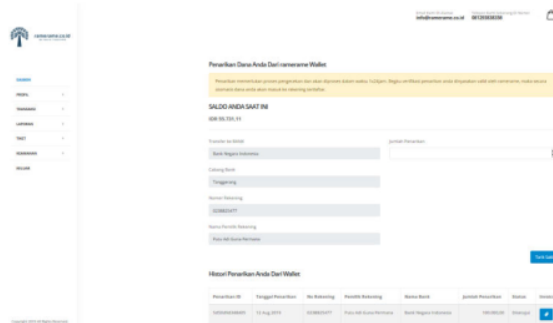


Fig 13 Wallet Withdraw

This Ticket Page is created so that when a member has a complaint or problem, it can be written and sent to the crowdfunding party via this menu. Here is how it looks:

#### IV. CONCLUSIONS

After observing the results of the research trials the conclusions from this study are:

1. Web-based Crowdfunding can help young entrepreneurs or people who have minimal capital to have the business offered.
2. With this web-based crowdfunding, it helps the community to choose products that are financed or desired.
3. Web-based Crowdfunding makes it easy to monitor businesses and profits against funded products.

#### ACKNOWLEDGMENT

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STIKOM Bali; includes the Chairperson along with his management team, providing support and resources

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## PRIMARY SOURCES

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- 1 Christian Soetanto, Ivana Prawartana, Stephen Leonardo, Maria Susan Anggreainy, Yasri, Gintoro. "Progressive Web Application (PWA) Development for Outfit Management System", 2022 5th International Conference of Computer and Informatics Engineering (IC2IE), 2022  
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