Software Requirement Specification - Crowdfunding Project

Version 2.0

Prepared for LABS

Version	Date	Author	Reason for changes
1.0	15 Nov 2020	Badi Ifaoui	Initial SRS
2.0	24 Nov 2020	Leonidha Zhezha	Final Review

1 Introduction

1.1 Document Purpose

The purpose of this document (Software Requirements Specification Version) is to document the business, technical, and overall Software Requirement Specifications (SRS) for the STO Crowdfunding project, which is Introducing the first marketplace for investing in real estate debt. Now you can invest in the loans made to borrowers, and as they pay back their loans, you make money.

The goal, therefore, is to document:

- The overall vision for the application
- Functionalities to be included in the application
- User Roles to be included in the solution
- User Experience and Use Cases
  - User Journey
  - User Stories and Acceptance Criteria (story map)

1.2 Vision

The general use of the application will be on a laptop-type computer taken with the Fundraisers to present their project information to the STO investors.

1.3 Solution Summary

The solution would be geared towards being a web-based application. The solution would utilize the latest technologies and would be built to be fast, intuitive, and would have the following features.

1.4 STO Crowdfunding Web Application

- Registration/Login/Forgot Password
- KYC Verification
- Submit Project Application
- Project Milestones
- Project Highlights
- Projects Data & Files
- Company Projects
- Company Members (Only for show)

- Invest In Projects
- ** Sign Project Contracts
- Payment Gateway integration via Coinbase / Manual
- Project Overview/Dashboard
- Project Creation Section and Information Section
- Contacts Section
- Settings
- Other Functionality

1.5 Admin Panel

- Login
- User Management
  - CRUD Operations for Users
  - Review KYC (Approve, Reject)
- Application Management
- Project Management
  - CRUD Operations for Projects
- Settings
  - List of Values Configuration

2 User Role Definition

The STO Crowdfunding Application will be having the following Users Roles:

2.1 **Administrators:** The STO Crowdfunding Admin would be able to manage everything single aspect of the application data and view statistics, and other information. This role would only be working on the Admin Panel.

2.2 **Investor:** Will be able to search through available projects and invest in them.

2.3 **Fundraiser:** Will be able to submit project applications and raise funds for finishing the projects.

3 Project Scope

The following section describes the functionality along with the flow followed and any business rules that are applied:

3.1 Registration/Login

The User can register with the STO application by using the User Journey as seen here. If the User is a new User user to the system, then they would be following the Registration flow as seen in the User Journey. If the User is an existing STO User, then they would be logging into the system by using the Login flow into the System.
The registration process would have the following fields:

Field Name	Type	Required
Email Address	Email	Yes
Password	String(6-50)	Yes
Confirm Password	String(6-50)	Yes
First Name	String (4-50)	Yes
Last Name	String(4-50)	Yes

Also, the user must agree to the “Terms and Conditions” & “Privacy Policy” of the platform.

After that the user must verify his email address before he can go to the next steps.

3.2 KYC Submission

The User cannot invest or view any project details before identifying his identity as has been described in the flow here. The KYC verification process would require the following fields:

Field Name	Type	Required
Phone Number	String (5-52)	Yes
Date of Birth	String	Yes
Gender	Enum	Yes
First Name	String (4-50)	Yes
Last Name	String(4-50)	Yes
Country	String	Yes
State	String	Yes
City	String	Yes
Postal Code	String	Yes
Address Line 1	String	Yes
Address Line 2	String	No

After adding those details the user will be required to upload clear documents of him (Passport or National ID Card or Driver License) + a selfie as a photo proof of the customer while he is holding him documents.

After that is done, we will send an email to the user to notify him that we received him information and one of the platform admins will review it within 3-5 business days.

3.3 Linking Wallet Address

The User will be able to link his wallet address that he will be using for payments & receiving payments, in advance after he finishes his KYC forms as has been described in the flow here. The user should be able to select that exchange wallet address type from a dropdown menu of the supported wallets in the platform, and then he can enter his wallet address which should be ERC20 compliant.

After filling the wallet type & address, the user should agree to “Terms and Conditions” and “Privacy And Policy” and should confirm that all the information he entered is correct.

3.4 Project Creation

The project creations should go through those steps:

3.4.1 Project Application

In order for the investors to submit their projects, they should first submit a “Raise Capital Application” before he can add him project details, and this application should go through the admins to review it and accept/reject it as has been described in the flow here.

The application requires some basic information about the project owner and the project by itself, and the fields for this form should be like the following:

Field Name	Type	Required
First Name	String (4-50)	Yes
Last Name	String(4-50)	Yes
Email	Email	Yes
Phone Number	String	Yes
Company Name	String (4-50)	Yes
Company Website URL	URL	Yes
Amount To Raise	String	Yes
Indent Time To Close	Date	Yes
Asset Class	Enum	Yes
Experience	Enum	Yes
Description	String	Yes
Attachments	Files	Yes

After the investor submits his application form we should notify him that we received the project request and it will be reviewed by one of the platform admins.

3.4.2 Project Information

If the investor project application has been approved he can proceed and start adding him project information as has been described in the flow here.

Field Name	Type	Required
Name	String	Yes
Location	String	Yes
Square Feet	Number	Yes
Target Hold (Months)	Number	Yes
Minimum investment	Number	Yes
Annual Expected Return (percentage)	Number	Yes
Country/Regions Restrictions	Selection (Countries)	Yes
Description	String	Yes
Project Images	Files	Yes

3.4.3 Project Highlights

The project can contain multiple project highlights as has been described in the flow here, which consists of only descriptions.

3.4.4 Project Milestones

The project can contain multiple milestones as has been described in the flow here.

Each milestone should contain the following fields:

Field Name	Type	Required
Date	Date	Yes
Description	String	Yes
Images	Files	Yes
Attachments	Files	Yes

3.4.5 Project Company

Any project should identify the company that is responsible for it as has been described in the flow here.

And the investor should fill the following items:

3.4.5.1 Company Information

Field Name	Type	Required
Logo	File	Yes
Description	Text	Yes
Images	Files	Yes
Attachments	Files	Yes

Note: the company name and website url will be auto set from the project application.

3.4.5.2 Company Achievements

Any company should have previous achievements to show to the investors as has been described in the flow here.

Field Name	Type	Required

Title	String	Yes
Description	String	Yes
Images	Files	Yes
Attachments	Files	Yes

3.4.5.3 Company Members

The company should describe its members

Field Name	Type	Required
Name	String	Yes
Position	String	Yes
Description	String	Yes
Avatar	File	Yes
Linkedin Profile URL	URL	No

3.4.5.4 Company Social Links

Each company can add it's social links like (facebook, instagram, linkedin) as has been described in the flow here.

3.4.6 Project Data Rooms

As has been described in the flow here, the project can have an area where they can share documents with it's investors.

And those informations can be:

Field Name	Type	Required
Title	String	Yes
Description	String	Yes
Images	Files	Yes
Attachments	Files	Yes

3.4.7 Project Legal Documents

The project creator should put the legal documents that the investor should sign when they invest in their project, as has been described in the flow here.

3.5 Invest In Projects

The investors should be able to navigate through the projects available for them to invest on, and view all the details the fundraiser has put in the project.

The investor can invest in a project in 2 steps:

3.5.1 Sign Contract

As per described in **3.4.7** of this document the fundraiser will be able to add legal documents for the investors to sign in order for them to invest in their project, and as has been described in the flow here, the investor will be able to to download those documents and sign them, then scan and upload them again for the contract reference.

3.5.2 Set Payment

The investor will be able to select the supported crypto currencies supported in the platform to buy project shares with as has been described in the flow here.

Then he can set the amount of money he wants to invest in this project.

We will display the amount of shares that he will own based on the amount he has set.

Also the invest should not be able to add an amount that is less than the minimum investment amount that have been set in project creation (check : 3.4.2)

The Investor will be able to select on of the 2 payments available payments methods:

- Manual Payment
- Coinbase

And then he should specify the address he has sent money from.

3.5.3 Pay

When the investor confirms the payments we will notify both (admin, fundraiser, investor) about this action.
The admin or the fundraiser will confirm that the payment was received manually.

4 Non Functional Requirements

4.1 User Guide (FAQ)

The User Guide consists of information about the platform that the admin will add in ahead of time for the customers to learn information about the platform and report if those informations were helpful or not as has been described in the flow here.

4.2 User Activity Tracking

The platform will track user activities:

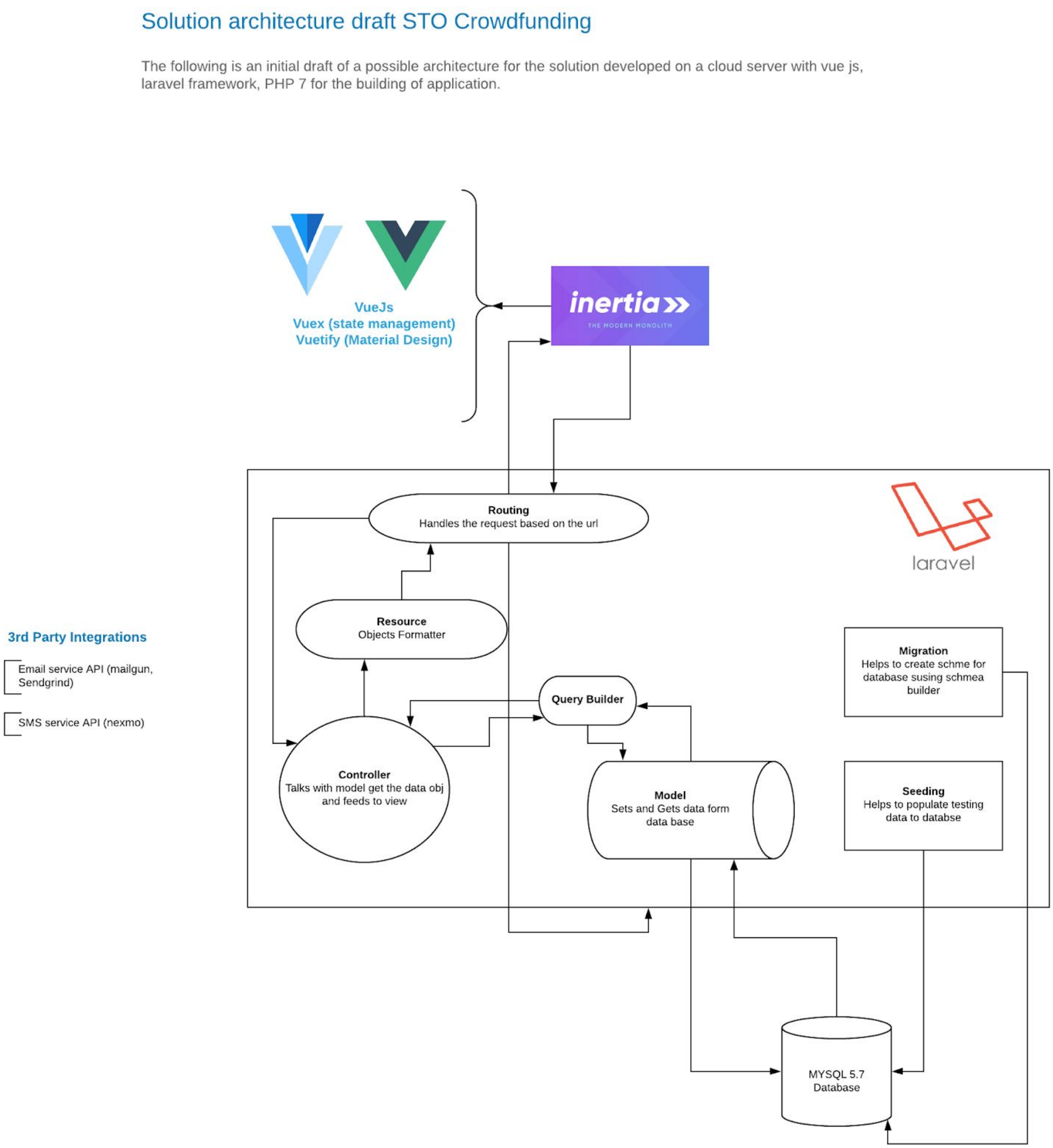
- Login attempts
- KYC updates
- Project create
- Projects viewed
- Investments
- etc...

5 Technical Architecture

5.1 Architecture

The application architecture overall will be a monolithic application architecture built using the Laravel 8 PHP framework written on top of PHP 7 language.

https://lucid.app/invitations/accept/8807d2ac-9075-4b8e-bce8-dac7bc542e09



5.2 Backend Stack

The following set of technologies are being utilized for the application,

- Hosting Operating System - Linux(Ubuntu)
- Database - MySQL
- CPU -
- RAM -
- Storage on Disk -
- Server Side Language - PHP 7.2.5
- Other Extensions
  - BCMath PHP Extension
  - Ctype PHP Extension
  - Fileinfo PHP extension
  - JSON PHP Extension
  - Mbstring PHP Extension
  - OpenSSL PHP Extension
  - PDO PHP Extension
  - Tokenizer PHP Extension
  - XML PHP Extension
  - Imagemagick PHP extension

5.3 Front-End Stack

The following set of technologies are being utilized for the application,

- VueJs
- Vuex
- Vuetify
- InertaJS
- Axios
- Vue-Meta

5.4 3rd Party Integration

For the production environment, we would need to create accounts for using the following services:

- Email Notification: (Mailgun or Sendgring or SES, or any SMTP)
- Payments: (Coinbase)