

YOM

(Youbility Order Manager)

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Requirement Analysis Document (RAD)

1. Introduction

1.1. Purpose of the system

Software requirements specifications(SRS) are the foundation of the pillars of software. When this rigorous investigation is committed to paper, and the parties involved agree upon the scope and functions, the need for costly redesign or mid-project changes is minimized. In the process of software development, the developers usually have difficulties in determining users' requirement. They also spend too much time on collecting requirements to ensure the high quality of requirements. This application aims at efficiently collecting users' requirement and being easier to determine what they really need. Furthermore, it also can be used to determine basic requirements for people to organize an activity.

1.2. Intended Audience and Reading Suggestion

The document is intended for developers, project managers and users. There are five chapters in this document. This chapter mainly introduces the purpose, intended audience, reading guides and references. Chapter2 shows the related technologies applied in the project. In the chapter3, you can understand the structure of this system. Chapter4 is some basic analysis including application requirements analysis and database design. At the last chapter, it will tell you what the pages look like and the jump logic among them.

1.3. Reference

This document refers another resources as below:

- Document Format: https://web.cs.dal.ca/~hawkey/3130/srs_template-ieee.doc
- Document Format: <http://people.brandeis.edu/~zbrod/files/RAD-V1.10.docx>
- Benefits About PWAS: <https://www.applozic.com/blog/benefits-of-pwas/>
- Benefits About MariaDB: <https://seravo.fi/2015/10-reasons-to-migrate-to-mariadb-if-still-using-mysql>
- UI styles guides: Quiz Maker

2. Technology Stack

2.1. Progressive Web Application

The term "Progressive Web App" is composed in part of the Web Apps , which are developed using the Web technologies HTML , CSS and JavaScript.

There are four benefits about PWA:

- Low Data Usage - PWAs only use a fraction of data usage compared to native apps.
- No Updates Required - it doesn't have to be updated in the background or before you launch it like a native app.
- Costs Are Kept Low - Progressive Web Apps are cheaper to produce but not at the expense of less functionality.
- PWAs Are Great For SEO - Progressive Web Apps are cheaper to produce but not at the expense of less functionality.

2.2. GraphQL

GraphQL is a query language created by Facebook in 2012 and open-sourced in 2015.

There are two benefits about GraphQL:

- Clients have the ability to dictate exactly what they need from the server, and receive that data in a predictable way.
- It is strongly-typed which allows API consumers to know exactly what data is available, and in what form it exists. distribution, or deployment model.

2.3. Strapi

Strapi is an Open source Node.js Headless CMS.

There are three benefits about Strapi:

- Content Management – Strapi project, allows content editors to easily add, edit and delete content including media and other assets.
- High Customizable API - Request your API using REST or GraphQL. Every API endpoint can be public or restricted to specific roles.

2.4. MariaDB

MariaDB is a community-developed, commercially supported fork of the MySQL relational database management system, intended to remain free and open-source software under the GNU GPL.

There are four benefits about MariaDB:

- More open and vibrant – MariaDB on the other hand is developed fully in the open: all development decisions can be reviewed and debated on a public mailing list in the public bug tracker.
- Quicker and more transparent security releases – MariaDB follows good industry standards by releasing security announcements and upgrades at the same time and handling the pre-secrecy and post-transparency in a proper way.

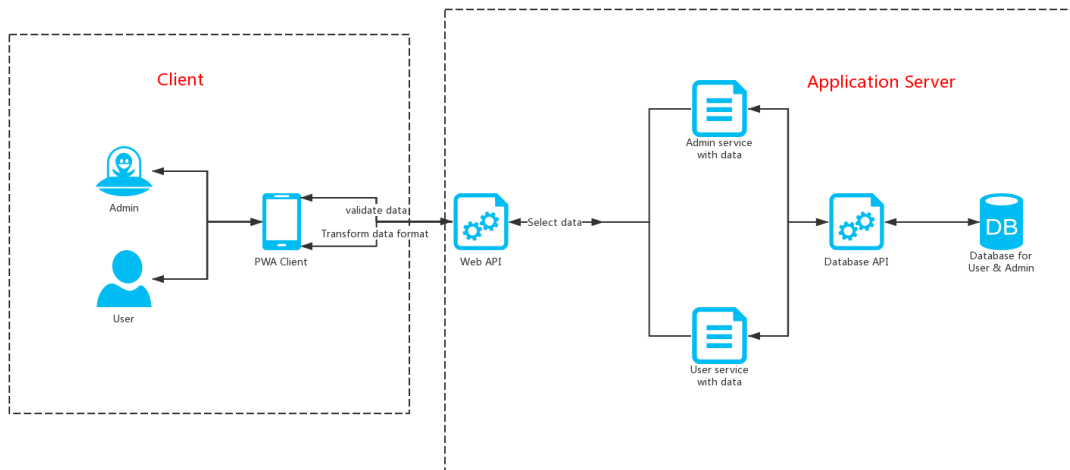
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- More cutting edge features – Dynamic column support (MariaDB only) is interesting because it allows for NoSQL type functionality, and thus one single database interface can provide both SQL and “not only SQL” for diverse software project needs.
- More storage engines – MariaDB in particular excels as the amount of storage engines and other plugins it ships with: Connect and Cassandra storage engines for NoSQL backends or rolling migrations from legacy databases, Spider for sharding, TokuDB with fractal indexes etc.

3. Structure Of System

3.1. Structure Chart

Figure 3 - Structure –The structure Of The System



The system how to deal with users request:

- Client initiate requests all kinds of service(If user want to create a new project for example).
- Server offers all kinds of api to deal with client's request.
- Server calls the data which satisfies the service from DB
- Then Server return the data back to client.

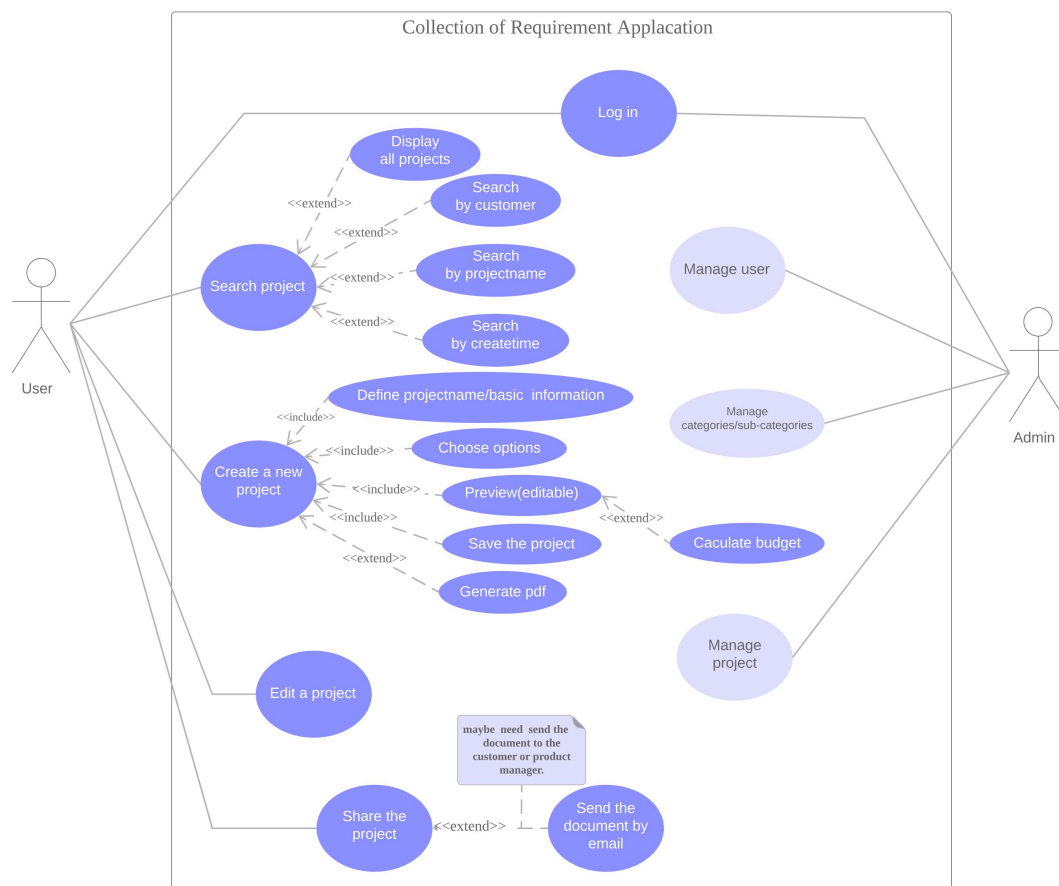
4. System Analysis

4.1. Overview

This section provides a functional overview of the system. This will again be properly be divided into two parts

4.2. Functional Requirements

Figure 1 - UserCase – Functional Requirements



Functions of User

3. Search projects
 - Search by created time
 - Search by companies' name
 - Search by projects' name
4. Create a new project

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Version 1.0 [Feb-26-2019]

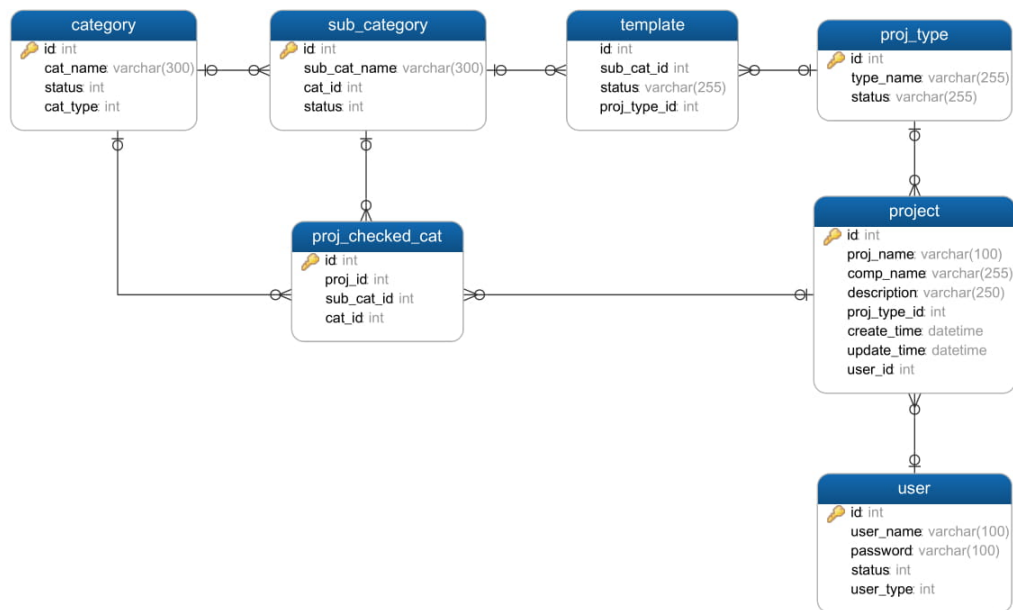
- Choose the type of project
 - Fill in the details
 - Preview the document
 - Save the document
 - Export pdf file (optional)
5. Edit a project
 6. Share the project by email

Functions of Admin

7. Manage User
8. Manage Project
9. Manage Options

4.10.Database Design

Figure 2 - Database – Connection Between Tables



- **USER Table** – Shows users' basic information. USER_TYPE distinguishes who is an admin or who is a normal user.
- **PROJ_TYPE Table** – This represents the type of project.

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Version 1.0 [Feb-26-2019]

- CATEGORY Table & SUB_CATEGORY – Each category has its subcategories and connect through foreign key “cat_id”.
- TEMPLATE Table – This is about the template of project. What type of the template it is and what subcategories the template has.
- PROJECT Table – When user creates a project, it will be inserted into this table.
- PROJ_CHECKED_CAT Table – This table will record what subcategories each project selects.

5. Pages Jump Logic & User Interface

5.1. User Pages

These pages from P1 to P9 are users' pages, you can find in “/01-UI/UI.pdf”.

Figure 4 - User Pages –The logic Of User Pages

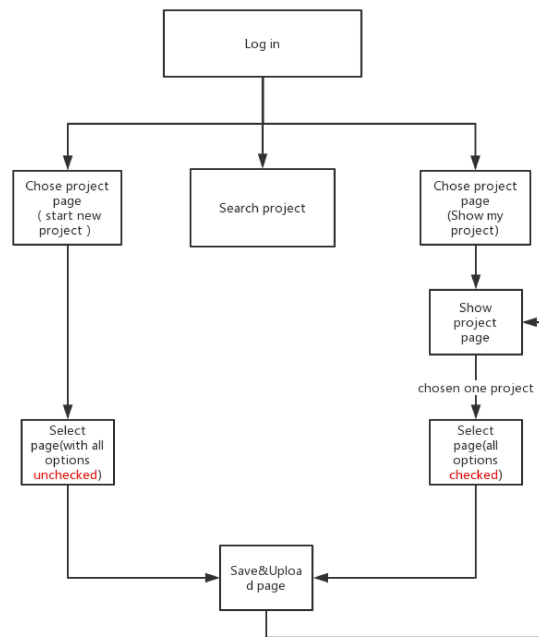
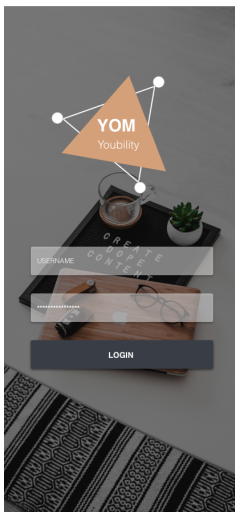


Figure 5 - User Pages –The Description Of User Pages



Page 1 - It's a Login Page, then if log in successfully, get into User StartPage (P2) or Admin StartPage (P10).

Page 2 - It's a user's Start Page. You could “create a new project” or “see all project you created”.

Page 3-6 - These pages show how to create a new project. Choose the type of project => Fill in the details => Preview the document => Click save (Export a file or Cancel)

Page 7-8 - Two kinds of Search Page. P8 is more proper because I show the time-line in P9.

Page 9 - It's a Project Page. These projects sort by created time.

5.2. Admin Pages

These pages from P10 to P3 are admin's pages, you can find in “/01-UI/UI.pdf”.

Figure 6 - Admin Pages –The logic Of Admin Pages

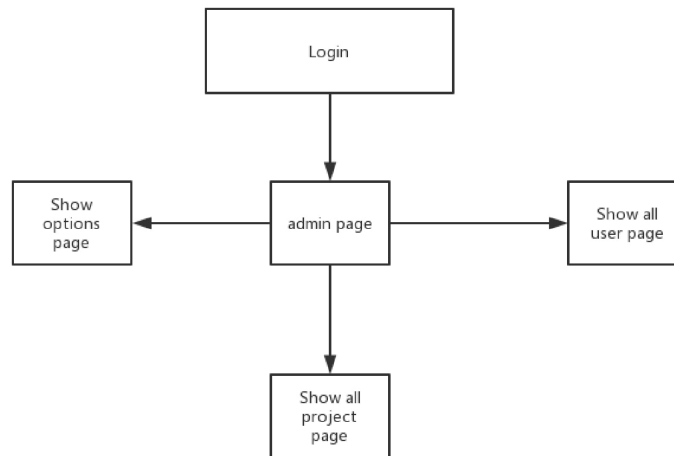
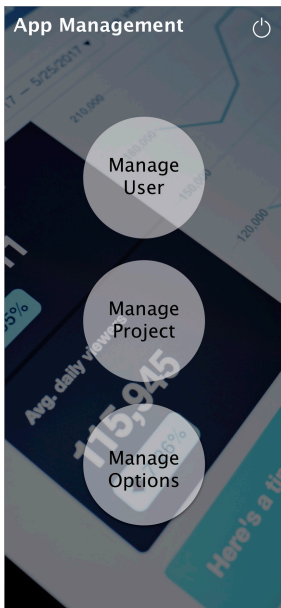


Figure 7 - Admin Pages –The Description Of Admin Pages



Page 10 - It's a admin's **Start Page**. You could “**manage user**”, “**manage project**” or “**manage options**”.

Page 11 - It's a **Manage User Page**. You could edit users' basic information.

Page 12 - It's a **Manage Project Page**. You could edit projects' basic information.

Page 13 - It's a **Manage Options Page**. First, you select the type of projects and then it will show its relative options below.

5.3. Q&A

6.Admin can not search?

Search module also can be used by admin it just not shown on ui.

2. the manage data page seems too simple?

We don't want so serious on data level, because the data structure haven't been decided. It's just a simple model. In the future version, admin will have better control of data.And the same reason we don't decide which search page is better for project.Once we settled data, most problems can be solved.