

PropTech Requirements Document

1. Introduction

1.1 Overview

PropTech is a web application that will help real estate companies and their tenants to manage their monthly utility bill.

1.2 Scope of the Product

This product is a web application that allows the real estate company to collect the utility bill from utility companies by using the Utility API and then split the bill to the tenant based on their percentage of energy usage. Not decided which framework for front end and back end yet.

1.3 Business Case for the Product

This product is required because it eases the way for real estate companies to manage monthly utility bills. Previously, landlords calculated and sent monthly utility bills manually, which cost time.

2. General Description

This web application will let the real estate management company collect their utility bill from utility companies and split the bill to their clients(tenants) by email. The tenant will also be able to log into their account and see the history of their utility bills.

2.1 Product Perspective

We want to save time for tenant managers in handling utility bills for each tenant. It serves to speed up the process of splitting utility bills and then sending them to the

appropriate tenants. The PropTech company is the primary stakeholder with our team developing the project and the PropTech company benefiting from the product.

2.2 Product Functions

Our product helps landlords to manage monthly utility bills.

Users can enter their company info, building info, and tenants info etc.

Landlords can create and send invoices to the tenants.

Landlords can enter % share for each tenant.

2.3 User Characteristics

Any PropTech building manager who has to split the bill to each tenant. It is designed for building management. We use an API from utility companies that provide contracted services for our company. We assume that they have no knowledge of programming, so our application will simply gain the number from utility bills by scanning the bill, and tenant information to input into our application. It would be very tedious for managers to handle by hand, so the web applications can be used in order to save time. There should not be any obstacles for users may encounter, it only simply asks users to log in and manually input tenant information.

2.4 General Constraints

We don't have any general constraints since we are building from scratch.

2.5 Assumptions and Dependencies

All of the users need to have an email account since the utility bill will be sent via email (or email notification) and users need to be able to receive the email.

3. Specific Requirements

3.1 User Requirements

We have two types of users for now: real estate companies and tenants

For real estate companies:

- Create an account for tenant using email provided by tenant
- Create an account for real estate company employee
- Login with email account
- Able to change the password
- Verify company info, building info, and tenant info.
- Set up email system for invoices to automatically be sent out to tenants
- View the history of invoices for each tenant

For tenants:

- Login with email account provided to real estate company
- Able to change the password
- View the history of invoices
- Receive email notifications of monthly bills

3.2 System Requirements

- It will not record any transactions since its only function is to deliver notifications to tenants.
- It does not need to use two factor authentication, just usernames and passwords are enough
- We are still deciding on how fast the system needs to be. It would be great if messages are rendered in a short time, but right now it depends on our software tools and design.
- It will not need an automatic script.

- We don't need to replicate data to other databases since only PropTech is used for splitting bills.

3.3 Interface Requirements

Screen mockups are available at

<https://docs.google.com/presentation/d/1DG0q3INrfWpOuYkljGS0jLiHYeflYKAf9VtrgsbtYak/edit?usp=sharing>

4. Appendices

5. Glossary

6. References

Utility API: <https://utilityapi.com/docs/api/bills>