FEASIBILITIY STUDY OF PROPERTY MANAGEMENT SYSTEM

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1.Introduction

1.1 Overview of the project

Property Management software is a web-based application designed to organize and manage the rental properties. It provides tools to maximize efficiency by automating the back-office work, financial accounting, and administrative tasks. This application will help the landlords/managers with e-leases, maintenance management and tracking,financial management, communication, property documentation, tenant portal, online payments.

For tenants this software will help them to track rental information, request maintenance, track their lease, check payments due and history.

1.2 Objectives of the project

The main objectives of this software are

* Advertise the available rental units.
* Create and track the lease.
* Maintaining the records of rental activities and tenant information.
* Collecting monthly rents and maintaining the financial reports.
* Communicating with customers and resolving their complaints.
* Assigning maintenance duties to workers and tracking their work.

1.3 The need for the project

Managing a property is a big responsibility for the landlords/ managers especially when they have multiple residential properties.

It involves keeping records of properties and tenants information, maintenance management, collecting rents, accounting financials, and communicating with tenants. If these activities are performed manually consume a lot of time and need the physical presence of customers and owners.

The property management software benefits users by saving their time and streamlines the rental activities. PMS helps the user to store and organize the property information and activities automatically. It provides tools for the user to

* Access the property tasks through the web at any time.
* Monitor administrative tasks .
* Financial reporting and management.
* Communicating with tenants and solving their queries.

1.4 Overview of Existing Systems and Technology

Buildium - Buildium is web-based property management system designed primarily to help owners to manage their property.

Property Management Software is focused on to minimize the duties of Administration and help the tenants to ease the access for their rental property and communication with the administration. Unlike Buildium, which is mainly focused on helping owners/ managers, PMS is designed to help both tenants and owners simultaneously.

The technologies used for PMS are :-

* Draw.io(Design tools)
* Python(backend development)
* CSS,Javascript,HTML(frontend tools)
* Apache(web-server)
* MYSQL(database).

1.5 Scope of the project

Main actors in this project are -

* Administrator(owner/managers)
* Tenants

Use Cases associated -

1. Administrator can

* Accept tenant applications
* Create leases and track
* Store property details
* Organize tenants information
* Collect rents online
* Assign maintenance work
* Track the maintenance work
* Communicate with tenants
* Post news or alerts

1. Tenants

* Can sign the lease agreement electronically
* See their rental information
* Pay rents online
* Communicate with landlords
* Request for maintenance
* Get payment reminders

1.6 Deliverables

A web-based software application to Help organize and manage the properties by automating several administrative tasks and keeps track of the rental activities being performed.

2. Feasibility Study

2.1 Financial feasibility

PMS is a web-based application which will not have any initial development cost, but it will have an associated hosting cost. The software will be designed to specified scalable dataflow. Bug fixes and scaling-up the dataflow might be an additional cost.

The initial market space will be small scale residential communities and owners of a couple residential properties.

The PMS benefits the customers in several ways by reducing the extra efforts for documentation and maintenance tracking. For individual owners who are having only a couple residential properties need not to hire any managing professional to take care of the administrative tasks. Automated capabilities of PMS reduce the effort of making maintaining track of Financial accounting and rental activities

2.2 Technical feasibility

PMS system is a web based application. The technologies used to design PMS are:

* HTML
* CSS
* JAVASCRIPT
* PYTHON
* SQL
* DJANGO
* DRAW.IO
* APACHE

PMS will be developed by the above mentioned technologies which will later be customized according to the quantity of the properties.

Hence the project is technically feasible.

2.3 Resource and Time feasibility

Resource feasibility

Resources required for PMS are,

* Computing devices (laptops)
* Programming tools (freely available)
* Programming individuals.

Time feasibility is achieved by programming individuals in the given period of time by communicating and coordinating with each other.

Hence the PMS achieved Resource and Time feasibility.

2.4 Risk feasibility

Risks are depended on several factors

Technical Risks :-

Will this software let everyone Access all the features :

As this software is a web application and monitored by admin, he will have access to all the features. The tenant restriction can be made by the admin depending on the constraint.

Size of the database used by the product :

MYSQL will be used as the database for this project where all the tables will be able to handle the amount of data since this project is primarily used for small scale residential communities.

Scalability of the software :

The project is primarily focused on small residential communities and scalability will not be an issue.

Users of the product :

* Administrator(landlords/owners)
* Tenants.

Projected changes to the requirements for the project :

Most of the requirements are identified before the implementation phase of the project. The requirements remain the same unless new domains are added to the system.

Business risks :-

How will this software impacts on the management :

PMS will provide a centralized platform to manage administrative tasks which will save time by eliminating the underlying efforts of assigning small tasks and tracking them.

Management benefits in terms of economy :

As this software automates the documentation of the rental information, and will be able to record the activities and saves time to the administrator.

Customer Related risks :

PMS is initially developed for small scale residential communities offering general tools for property management, if the customer needs any additional feature according to their requirements change can be made.

2.5 Social/legal feasibility

PMS is developed open source technologies and will not have any development cost, may need associated hosting cost. The software is designed to reduce the time and efforts of the administrators.

3. Considerations

Performance :

This performance will not be degraded, the data traffic will not be huge unless the software is used by multiple remote communities and the data will not since the project is developed in an open source hosting platform. After installing the software in high-end server performance will not be an issue.

MYSQL is capable enough to handle the database transactions.

Security :

Both the administrator and tenants will be provided with login credentials.

User authentication - The customer can be able to login and access the software with valid login credentials only. The users can access the system as per they are defined for specific actors.

Usability:

The user interface will be easy to understand and operate.

Availability:

Hence this is a web application it is available all the time unless there is a failure in the system.

Capacity and scalability:

PMS is capable of handling the amount of traffic simultaneously and scalable enough for the management.

Maintainability:

PMS is a very well structured software which is less probable for a system failure to occur. So the system is highly maintainable.

4. References

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