

Client Management System Using Flutter

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Abstract: *Currently, the record keeping of the clients and projects is maintained manually via excel sheets which is a time consuming and cumbersome activity. The current process involves taking the project requirement through emails, updating the excel sheet as and when any new request comes, evaluating the project based on the criteria and so on. Hence it is felt to develop a portal to standardize the project initiation/evaluation. This in turn would help in providing a centralized view of the projects, enabling ready reference to the status and details of the project. To curb this problem there should be a solution feasible and accessible to each person. Managing clients, projects, meetings etc. in a fast and easy way makes the future and management of clients an easier task at hand. Owing to the current trend of using excel sheets for recording clients' credentials, a tool that helps as well as promotes sales and engage clients, managing their details would be benefiting.*

Keywords: Client management system, mobile app, flutter, dart.

I. INTRODUCTION

Customers are first in every business. They serve as the main engine that keeps organizations going. As a result of the inability to sell their products and services, businesses won't be able to turn a profit. As a result, one of the most crucial managerial responsibilities is overseeing relationships between the business and its clients. Although maintaining a relationship with customers is challenging, doing so makes them happy. A client management system, in other words, enables businesses to effectively manage their contacts with both current and potential customers. Depending on the client management software utilized, this could entail managing sales, streamlining processes, and organizing targeted customer relationships. As a result, companies may generate more income while enhancing client relationships and offering better customer service.

A specialized technology called customer relationship management (CRM) enables businesses to collect, store, access, share, and analyze massive amounts of consumer data. CRM is a project used to manage customer relationships inside an organization. It entails utilizing technology to streamline and organize business operations as well as a variety of techniques and tactics to meet consumer wants and increase revenue, profitability, and sales for the company (Baashar et al., 2020; Tingbin et al., 2018)[1]. Therefore, a company's business plan cannot be realized without a good CRM system. The client management software will make it simple to save all current customer information and data, making it simple to send targeted and strategic follow-up messages to upsell the goods or service. Without a CRM system to gather all customer information in one location, there is a chance that some current customers might be lost. It is evident that having a client management system in place provides benefits for keeping customers.

II. MOTIVATION

The primary motivation for using a client management system (CMS) is to help businesses manage their client relationships more efficiently and effectively. A CMS allows businesses to store and manage all of their client data in a centralized location, which can be accessed and updated by authorized employees. Some of the key motivations for using a CMS include Streamlined communication: A CMS enables businesses to communicate with their clients in a more efficient and streamlined manner. This can be achieved by using the system's tools for sending emails, scheduling appointments, and managing phone calls [2].

- Improved organization: By centralizing client data, a CMS can help businesses to better organize and manage their client relationships. This includes tracking client interactions, managing appointments and deadlines, and tracking client feedback and complaints.
- Enhanced productivity: A CMS can help businesses to be more productive by automating routine tasks, such as scheduling appointments, generating reports, and sending follow-up emails. This frees up employees to focus on more complex tasks that require human attention.
- Better customer service: A CMS can help businesses to provide better customer service by giving employees access to all relevant client data, including history and preferences. This allows employees to provide more personalized service and resolve client issues more quickly[3].

III. LITERATURE SURVEY

1. In this paper titled "Research on Customer Relationship Management in Software Industry Based on Multi-Agent", Hui Jiang and Yuan Yuan Zhang concentrate on CRM execution for the software sector. They examined the characteristics and requirements of software companies' CRM systems, used multi-Agent technology, and combined it with CRM concepts, analyzed the software industry CRM system data features and system requirements, and proposed the system framework of CRM in the software industry based on multi-Agent to meet the needs of the software industry for intelligent analysis of customer relationships and to improve customer service quality. This framework can be used by software businesses to create a strong customer relationship management system that will enable them to implement their marketing strategies, proactively offer clients individualized service, and raise their level of customer happiness. Only the CRM system used by the software business was the sole focus of this research [4].
2. Financial organizations work with a significant number of customers whose data must be kept current and stored. To address this issue, Bc. Michal Stranák's paper, "Client Management System for Financial Companies," concentrated on offering changes based on business requirements as well as enhancements of design flaws. Companies that are a member of the Home Credit Group use a method of this kind called Customer Information File. The system's functionality is restricted to the real demands of a single company because its design was based on business requirements. The present system will be redesigned in the thesis to increase its versatility and get rid of these restrictions so that other financial sector organizations can use it [5].
3. In the paper "Studying the customer relationship management: A case study at Persian technology firm. Economic Insights – Trends and Challenges" by Darvish, H., Kafashzadeh, A. R., &Ahmadnia, H. (2012), It shows that an obvious strategy is one that prioritises CRM deployment as the primary step in the procedure. Its three planning stages are idea, planning, and client consultation. A universal and generally correct idea is required for execution. Long-term planning requires resources in the form of time, money, and labour. Planning is carried out in accordance with the department's allotted funding. While the company attempts to identify its customers and their future requirements in the customer-centric perspective. The information will then be utilised to enhance the goods and services [5].
4. In the paper titled "CRM implementation; a demand of present market" by Kumar, D. (2011), it concentrated on the idea that if CRM is used as a plan, it can affect how well an organisation performs. A perfect vision that is linked to the CRM process must be created by the company to perform strategy level CRM integration. The choice of segmentation and target consumers must be made beforehand, along with company success goals and benchmarks. The degree of personalization the business will provide to its clients must also be decided. At the conclusion, the business must also calculate the financial gain or benefits that result from implementing the CRM in the organisation [6].
5. There are various studies in the literature that use CRM in companies and organizations. Three industries often utilize CRM well:
 1. Customer service: A company has a place of business where staff members may speak with clients. These are the channels via which the business interacts with you, collaborates with you, and produces products and

offers services to its clients. Every client contact is documented and handled in the CRM database, which other staff members can use as needed [7].

2. Salesforce automation: The business's sales divisions are always trying to close deals with both existing and potential clients. The sales staff can keep track of each customer's contact information thanks to the CRM software's sales power management tool. It can boost the productivity of the sales staff because there aren't many possibilities for doubling down [8].

3. Campaign management: Campaign management is basically a sales team's attention on a program where a variety of clients' needs are satisfied. These clients are enticed with tailored items and occasionally exclusive deals. CRM software for gathering information on marketing campaigns and consumer behaviour[9].

IV. PROBLEM STATEMENT

A common technique for managing a business's contacts with clients, customers, and sales prospects is client management systems. It entails utilizing technology to coordinate business operations, sales activities, as well as marketing, customer service, and technical support activities. Since this technology is virtual and does not require a real setting or office space, anyone can utilize it. Currently, the record keeping of the projects is maintained manually via excel sheets which is time consuming and cumbersome activity. Hence it is felt to develop a portal to standardize the project initiation/evaluation. This in turn would help in providing a centralized view of the projects, enabling ready reference to the status and details of the project. Through this system, the owner may communicate and deliver services, and the client can access and monitor both their status and the state of their projects, as well as learn more about the projects and new systems.

V. PROPOSED SYSTEM

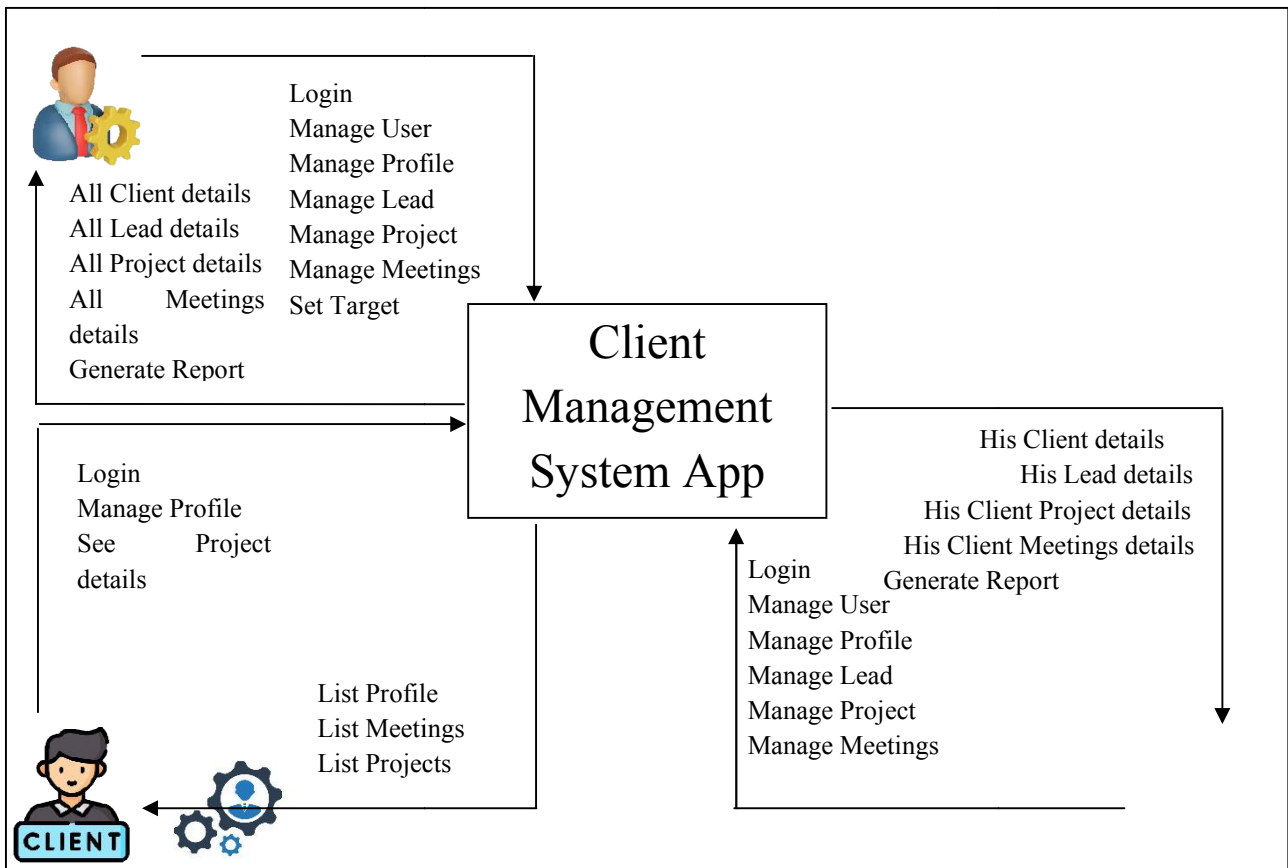


Fig. 1: Proposed System Block Diagram

The aim of a client management system (CMS) is to help businesses manage their client relationships more efficiently and effectively. The primary objective of a CMS is to centralize all client data and provide a platform for businesses to manage their client interactions, tasks, and communication in a streamlined manner.

Our application will consist of three important inter-dependent modules. They can be described as follows:

- Administrator
- Business Developer
- Clients

5.1 Advantages of the Proposed System

The use of a better management system for clients will confer several advantages to the company.

- Quality and efficiency
- Decreased in overall costs
- Decision support
- Enterprise agility
- Customer Attention

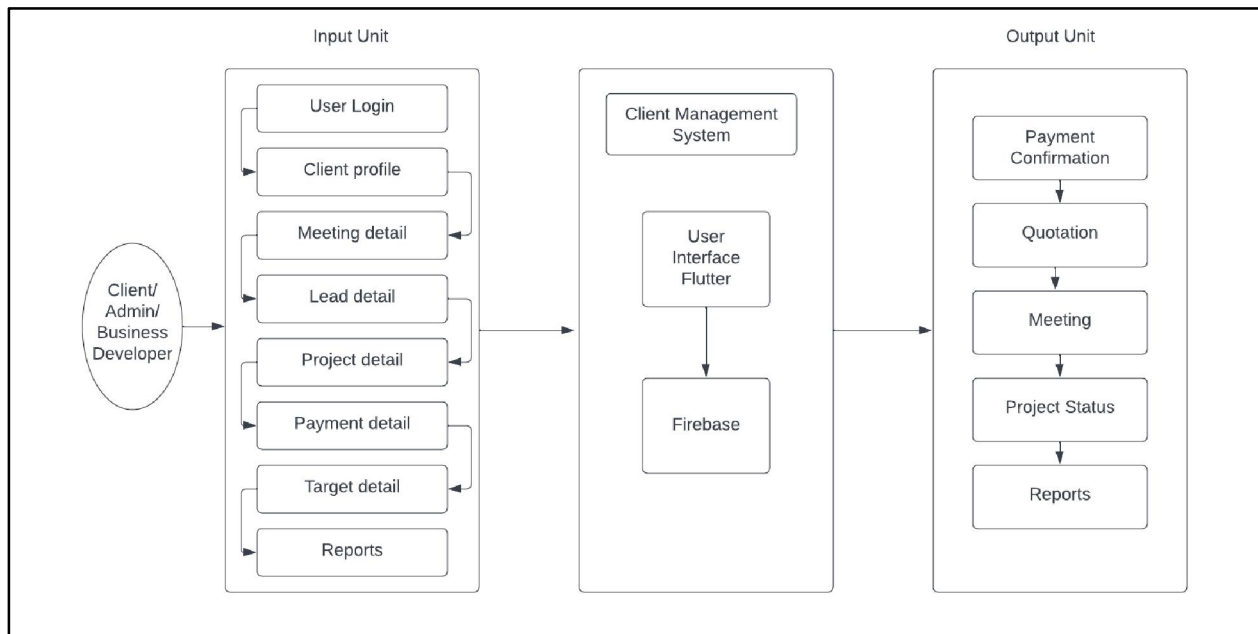


Fig. 2: Data Flow Diagram

VI. FUTURE DEVELOPMENT CONSIDERATIONS

As technology continues to evolve, there are several future development considerations that can be keep implemented when developing or updating this client management system (CMS):

- **Cloud-based Infrastructure:** Cloud-based CMS systems offer several advantages, including scalability, remote access, and cost-effectiveness. Businesses should consider a cloud-based infrastructure when developing or updating their CMS.
- **Data Privacy:** As the importance of data privacy continues to grow, businesses must ensure that their CMS systems are compliant with data privacy regulations, such as GDPR and CCPA. This includes implementing robust security measures to protect client data.
- **Integration with Third-Party Applications:** Businesses should consider integrating their CMS systems with other third-party applications, such as CRM software, marketing automation tools, and social media platforms. This will provide a more comprehensive view of client interactions and enable businesses to better engage with their clients.

The future developments in technology will continue to impact CMS systems, and businesses should stay up to date with the latest trends to ensure that their CMS is effective in meeting their needs.

VII. CONCLUSION

A client management system enables organizations to efficiently manage their interactions with both present and future clients. CRM enables businesses to collect, store, access, share, and analyze massive amounts of consumer data. The app will also contain payment, invoice, suggestions, notifications, quotations and reports. Managing connections between a company and its clients is one of the most important managerial tasks. We have created prototype of project along with framework analysis report to build Client Management System application for android and iOS device which can manage clients, managing reports, managing projects etc., anywhere, anytime. Also reduce the overhead of handling clients' details on excel sheet which takes much time.

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