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Construction Materials Order Management Android Application

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ABSTRACT: The Construction Materials Order Management Android Application is specifically designed to streamline the order management process for a construction materials company. The app aims to provide a comprehensive set of features that will enable efficient management of customer orders, delivery tracking, payment handling, and generation of various statistics for the company's operations. The Construction Material Order Management Android application will offer a user-friendly interface for both customers and company personnel. Customers will be able to place orders directly through the app, providing details such as the type and quantity of materials required, delivery location, and preferred delivery date. The app will generate order confirmations and automatically notify the company personnel responsible for processing the order. Customers can receive updates on their orders and track the progress through their own accounts in the app.

KEY WORDS: Construction Materials Order Management, Material

I. INTRODUCTION

In the fast-paced world of construction materials management, efficiency and precision are paramount. To meet the evolving demands of the industry, the Construction Materials Order Management Application emerges as a cutting-edge solution designed to revolutionize the order management process for construction materials companies. Tailored for Android devices, this application stands as a comprehensive toolset, addressing the intricate needs of the industry to enhance productivity, streamline operations, and ensure customer satisfaction. Construction Materials Order Management Application serves as a centralized hub, offering a robust array of features that empower construction materials companies to navigate the complexities of order fulfillment seamlessly.

From managing customer orders and tracking deliveries to handling payments, and generating insightful statistics, the app is a versatile companion for companies striving for operational excellence. The backbone of Construction Materials Order Management Application lies in its ability to provide real-time visibility into every facet of the order management lifecycle.

By leveraging the power of Android technology, this application transforms the way construction materials companies interact with their processes, fostering a more agile and responsive approach to their operations. As we delve deeper into the functionalities of Construction Materials Order Management Application, we discover a tool that not only simplifies the day-to-day tasks but also elevates the strategic decision-making process. The app's intuitive interface and feature-rich design cater to the diverse needs of construction materials companies, enabling them to adapt to the everchanging demands of the market.

From order inception to delivery and beyond, Construction Materials Order Management Application is engineered to optimize each stage of the materials management cycle. Whether it's tracking the progress of an order, ensuring timely deliveries, or analyzing key performance indicators, the application empowers companies to take control of their operations with unprecedented ease. In this era of digital transformation, Construction Materials Order Management Application stands as a testament to the commitment of construction materials companies towards embracing innovation.

In essence, Construction Materials Order Management Application is not just an application; it is a strategic enabler, propelling construction materials management into a new era of efficiency, transparency, and success. By providing an efficient and user-friendly interface, real-time tracking, secure payment processing, and comprehensive reporting features, the app will enable companies to better manage their operations, improve customer satisfaction, and make informed business decisions.

II. LITERATURE SURVEY

Effective materials management is the key factor in construction; take an organization should measure the results of good practices in materials management. ” To achieve good planning and good flow of materials at the site from day one so that both the pace and rhythm are on the job at all times If you have an experienced materials management system such that ”flow” can be expected between two places, there will be no delay.” With a little thought, estimate that ordered materials are saving us a good deal of labor and a great many delays. Then what roughly remains in materials as an initial investment If a thing is wrong, measures can be taken against it at the outset. A construction project spending large sums of money Materials management should set goals and remain within them. In that case the net result is labour saving.

High on the list of procurement responsibilities for construction is the dollar size investment in materials. From the viewpoint of cutting the overall cost project, therefore, reducing procurement cost would be advantageous. The new material management standards that were implemented at that project construction site would attempt to correct these wrongs. It is not the same as current construction projects, which use a manual skill touch to do everything and records every detail on paper either; this new approach in place will see real-time monitoring control of materials conducted with automated. In understanding this concept for policy research on computer science and engineering disciplines, an application has been designed based on such an idea.[1]

This paper includes a review of material management studies (of best practice) leading As an essential input to the construction industry, which is construction materials for most of the projects Construction materials for nearly every project After taking stock of insufficient materials dearth of material safety worries and how delivery can be made in one piece without slipping around, the project must go on as normal Economic batch quantity analysis can solve the problem of material management in construction in one time and at lower cost, thereby a reduction construction costs timely in ordering construction materials The main sources for material procurement data are questionnaires, site visits to ascertain annual requirements of construction materials at each location—for which different surveys of literature available have also been used.[2]

Construction material costs make up a large part of project spending. Therefore, if construction materials procurement does not have a sound schedule for how long it will take to acquire what kind of materials and at what point in time those goods should be transported to your construction site, there will be shortages, stoppages on supply lines as well as damaging waits for material deliveries. These are commonly referred to as ”time and value lost.” The research paper will establish a model of procurement management system which is applicable for UPVC and Ductile pipes used in water and sewage water infrastructure Projects in Iraq. Actual data were collected from seven Iraqi infrastructure projects. These data are analyzed by using the statistical analysis programs SBSS v. 23.[3]

This paper introduces several methods of construction material management for the project. Known by their abbreviations, those methods are S-curve and A-B-C analysis— two operations for controlling four major types of construction material. By using such methods, we have found a way to cut costs.

Its Sundollar Asymmetry Curve quantifies the fluctuations in estimated vs actual costs. In an A-B-C analysis, decisions are made only on the basis of what will be necessary tomorrow. Materials used to material the project should be determined by an A-B-C analysis.[4]

If different stakeholders become entangled in a conflict over infrastructure projects, Anything is possible - from renegotiating contract terms between project partners to popular consumer protests against privatized services. This paper aims to the principal objective is to identify combinations Of country, project and stakeholder factors that are Chapter 1; part 2 associated with Legal/ political conflicts occurring in natural gas and oil pipeline projects also water supply concessions or leases and tenancies. The analysis includes data from 26 infrastructure initiatives covering 31 countries as well as an analytical methodology derived from Boolean algebra. At level of individual countries, such as degree of democracy and number international humanitarian NGOs, weigh in the balance to determine where water supply disputes Will boil over but have no bearing on pipeline project crises. The characteristics of countries, such as the degree of democracy and the proportion of people living with at least one NGO membership, are found to be significant factors in predisposing water supply project failure but not so for pipeline projects.[5]

The writer put forth a generic model of maintenance management. It serves, first of all, as an integrative framework for other models derived from literature on built technology products and maintenance in use. Moreover, some important

added features have been introduced into this eight-stage management building block system that we summarized in Chapter III. Among those eight management building blocks, each is assigned with responsibility for taking a certain maintenance engineering technique. In this way we get a complete picture of maintenance engineering and what 1.1 Maintenance Engineering entails. This leads us to the “maintenance management framework”, or managerial pattern supporting structure.[6]

III. METHODOLOGY

- Project Planning: Define the project scope, objectives, and key features. Identify stakeholders and gather requirements from the construction materials company. Create a project timeline and allocate resources accordingly.
- System Requirements: Identify and list the functional and non-functional requirements of the CMMS. Prioritize features based on criticality and importance. Ensure scalability and flexibility for future updates.
- Technical Architecture: Choose appropriate technologies and frameworks for Android app development. Design a modular and scalable architecture for the CMMS. Consider using a backend server to handle data storage and processing.
- Database Design: The database scheme for storing data of customer orders, delivery details, payment information, vehicle locations and any other related data needs to be designed. Set up relationships between different entities in order that data can be retrieved efficiently.
- User Interface (UI) Design: Create wireframes and prototypes for the Android app’s user interface. Design an intuitive and user-friendly interface for order management, delivery tracking, payment processing, and statistics generation. Ensure a responsive design for various screen sizes.
- Development: Based on the finalized design, start writing the code of android development. The app shall have numerous functions such as place an order, follow up an order, process payments and monitor the position of vehicles in real time.

IV. SYSTEM ARCHITECHTURE

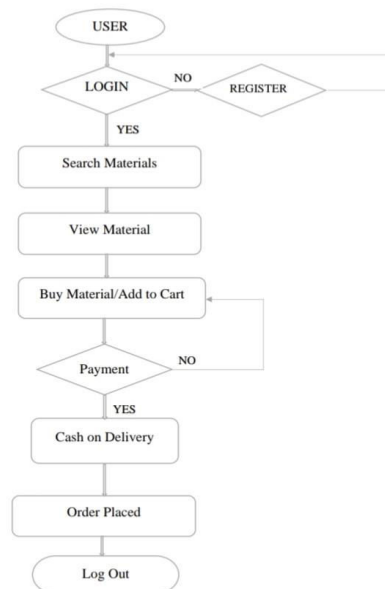


Figure 1: System Design

V. CONCLUSION

Construction Materials Order Management Application which can order the of construction material. The provided Web Search Results contain a variety of information, including details about integration’s the benefits of cloud-based asset management software, and the importance of regular maintenance and service for construction equipment. However,

the content is quite extensive and diverse, making it challenging to arrive at a specific conclusion for the given statement. Given the wide range of information provided, it's essential to distill the key points relevant to the Construction Materials Management System (CMMS) and its Android application.

This includes the emphasis on streamlining the order management process, managing customer orders, tracking deliveries, handling payments, and generating various statistics for the company's operation. As a result, focusing on the app's ability to streamline operations, enhance efficiency, and provide comprehensive features for order management, and financial tracking would be a suitable conclusion based on the information provided in the search results.

VI. FUTURE SCOPE

Due to the construction industry demanding more along with technical development resulting from all of this, construction products sales android app has a vast market, and bright prospect at the same time it can help improve customer relations whilst also lowering cost in all three steps: design and make, and then post-sales customer service. In particular areas, major progress is being made now to incorporate IoT into AI technology in order to form a more efficient system that has brainpower. Living sensors could communicate directly with the app, and this would free users from having to log every moment laboriously on their mobile device. IoT sensors together with AI technologies for managing this in an intelligent way are coming on. They can offer real-time data on the stockpile of materials, triggering replenishments when necessary and hence avoiding delays due to depleted supplies. Such AI algorithms will be doing predictive analytics about what materials may want to be bought down the line based on historical in/out figures, project time schedule etc.. Predictive analytics could have remarkable effects along with real automation. It might reduce your losses to a figure of 9 percent and lower the level of waste by two-thirds. By this logic, the construction industry could be made more sustainable. Everything in the future Development of Mastar Murals (Chinese version) must go well indeed: This means that its ability to meet customer requirements precisely from signing through expense control, state and local government regulation demands compliance—for example, with the use of environmentally sustainable building materials as well pharmacy made safe from such infections by sexually transmitted diseases (STD's) is struck out everywhere possible.

However, adding augmented reality (AR) and blockchain technology to the application's functionality can add new levels of transparency and interaction. By ensuring that all deliveries and transactions are safe, open, and untouchable, blockchain would build a foundation of trust between contractors and suppliers. With the use of augmented reality (AR), materials on-site can be graphically represented, improving project planning accuracy for later execution. For construction professionals worldwide, features like multilingual support, mobile payment integration, and comprehensive analytics will make the software more potent and adaptable. By leveraging the dynamic demands of the construction sector, this application may adapt and develop to propel project management efficiency and innovation throughout time.

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