

SMART WORKFLOW FOR MANUFACTURING INDUSTRY USING QR CODE TECHNOLOGY

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Abstract: We are introducing a smart system which will allow our user to track each and every activity used for building the carbide material. Implementing this system will take JavaScript, PHP and MySQL as the technology and database suggested by client. Our system will be web-based which will have different users like super admin, manager, etc. Each user will have a different user ID and password. Our system is based on QR code scanning, where the user will login to the application and scan the QR code based on a bin (Container which is used to carry the material) as our system will automatically change the status of building the phase. The current status of particular material will be shown on display. The benefits will be easy tracking of the current phase of material and the quantity. We are also providing a feature where the super admin will set the permission for the sub-users, what to edit and when to edit. AES algorithm is used to maintain the encryption and security of data. Our framework will be electronic which will have diverse clients like super administrator, supervisor, and so forth. Everyone will have a distinctive client ID and secret key. Our framework depends on QR code filtering, where the client will login to the application and output the QR code dependent on the container as our framework will consequently change the situation with building the stage. The current status of specific material will be displayed in plain view.

Keywords: Centralized system, QR code, Security Authentication, Inventory

INTRODUCTION

We are introducing a smart system which will allow our user to track each and every activity used for building the carbide material. Implementing this system will take Web Technology and MySQL as the technology and database suggested by client. Our system will be web-based which will have different users like super admin, manager, etc. Each user will have a different user ID and password. Our system is based on QR code scanning, where the user will login to the application and scan the QR code based on a bin (Container which is used to carry the material) as our system will automatically change the status of building the phase.

MOTIVATION OF THE PROJECT

The current situation of Hindustan Tungsten Carbide organization is very upset. The fundamental issue they are confronting right presently is to oversee records. Not able to find the phase of particular material of client. Due to which the commitment to client goes fail.

LITERATURE SURVEY

• Shaheen Mondal, Diksha Maheshwari, Nilima Pai, Ameyaa Biwalkar, "Policies in Multi-echelon Inventory Systems with Inventory-level-dependent Demand Rate", Advances in Computing Communication and Control (ICAC3) 2019 International Conference on, pp. 1-6, 2019. This paper presented an inventory model of series system with inventory-level-dependent demand rate for multi-echelon inventory management policy, which was based on the concept of echelon stock. Then a relaxation-particle swarm optimization algorithm (R-PSO) was proposed to solve the model, which integrated the serial-relaxation algorithm with the particle swarm optimization algorithm. This method overcomes the shortages of the traditional relaxation algorithm. Finally, a numerical example was given to illustrate the model and the algorithm efficiently.

• Mahajan Mayuri Vilas, Kakade Prachi Ghansham, Sawant Purva Jaypralash, Pawar Shila, "Secured graphic QR code with infrared watermark", Electrical Electronics Communication Computer Technologies and Optimization Techniques (ICEECCOT) 2019 4th International Conference on, pp. 384- 389, 2019. The barcode is an important link between real life and the virtual world nowadays. One of the most common barcodes is QR code, which its appearance, black and white modules, is not visually pleasing. The QR code is applied to product packaging and campaign promotion in the market. There are more and more stores using QR code for transaction payment. If the QR code is altered or illegally duplicated, it will endanger the information security of users. Therefore, the study uses infrared watermarking to embed the infrared QR code information into the explicit QR code to strengthen the anti-counterfeiting features. The explicit graphic QR code is produced by data hiding with error diffusion in this study. With the optical characteristics of K, one of the four printed ink colors CMYK (Cyan, Magenta, Yellow, Black), only K can be rendered in infrared. Hence, we use the infrared watermarking to embed the implicit QR code information into the explicit graphic QR code. General QR code reader may be used to interpret explicit graphic QR code information. As for implicit QR code, it needs the infrared detector to extract its implicit QR code information. If the QR code is illegally copied, it will not show the hidden second QR code under infrared detection. In this study, infrared watermark hidden in the graphic QR code can enhance not only the aesthetics of QR

code, but also the anti-counterfeiting feature. It can also be applied to printing related fields, such as security documents, banknotes, etc. in the future.

• Jan Bohacik, Ivan Skula, Michal Zabovsky, "A Secure QR Code System for Sharing Personal Confidential Information" ", Computer Science and Information Systems (FedCSIS) 2020 15th Conference on, pp. 27-30, 2020. Securing and hiding personal confidential information has become a challenge in these modern days. Due to the lack of security and confidentiality, forgery of confidential information can cause a big margin loss to a person. Personal confidential information needs to be securely shared and hidden with the expected recipient and he should be able to verify the information by checking its authenticity. QR codes are being used increasingly to share data for different purposes. In information communication, QR code is important because of its high data capacity. However, most existing QR code systems use insecure data format and encryption is rarely used. A user can use Secure QR Code (SQRC) technology to keep information secured and hidden. In this paper, we propose a novel SQRC system which will allow sharing authentic personal confidential information by means of QR code verification using RSA digital signature algorithm and also allow authorizing the information by means of QR code validation using RSA public key cryptographic algorithm. We implemented the proposed SQRC system and showed that the system is effective for sharing personal confidential information securely.

PROBLEM STATEMENT

• To manage the internal working flow of manufacturing companies and record using phase level tracking and records for updating the information related to delivery of products in the stimulated and committed time to customers.

GOAL AND OBJECTIVES:

- Centralized Management system.
- Manufacturing Industries.
- Easy to use.
- Proper management of work done in company with material tracking.
- Our main objective is to make system for client to help him manage his activity and maintain each and every record of client's products in different stage.
- Another objective is to maintain security of confidential data using AES Algorithm to avoid data loss situation and maintain stability to system.

PROPOSED SYSTEM

DUE to the rapid development of the Internet, cyber security has become an important research topic, and the energy waste caused by the occurrence of various cyber security incidents is immeasurable. In recent years, a large number of Internet companies have stolen user information data, resulting in the intrusion of users' online bank accounts. If the above information leakage incidents occur in the data platform of the relevant departments of the state finance and government affairs, the consequences will be unimaginable. The damage to national cyber security will be unprecedented. Web application layer attacks can cause long-term disruption to the resource availability, controllability, confidentiality, and integrity of data. Its influence is very persistent and secretive. A large number of web applications can construct executable commands, SQL injections, XSS and other web attacks simply by embedding executable code or malicious code in URLs. Therefore, the detection of malicious URLs has become the focus of intrusion detection.

SYSTEM ARCHITECTURE

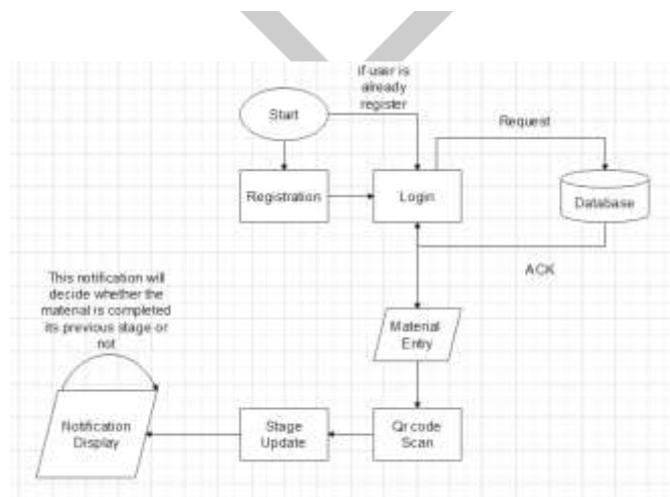


Fig -1: System Architecture Diagram

ADVANTAGES

1. Innovative.
2. Centralised Database.
3. Easy to use.
4. Efficient cost.

APPLICATION:

1. Industrial
2. Farming
3. Construction

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