DIGITALIZED MALKHANA MANAGEMENT SYSTEM

Deepak Mohanty
Dept. of Computer Science Engineering,
Parul University
Vadodara, India

Tushar Dhanore
Dept. of Computer Science Engineering,
Parul University
Vadodara, India

Nilesh Chaudhari
Dept. of Computer Science Engineering,
Parul University
Vadodara, India

Vaibhav Amrit
Dept. of Computer Science Engineering,
Parul University
Vadodara, India
vaibhavamrit17@gmail.com

***Abstract*— The effective running of the police station depends on keeping records current. These records help with record-keeping, criminal prevention, and detection. Storing assets from seized cases is one of the major problems in police stations. The conventional method includes manually preserving records through the Malkhana Register, which is insufficiently responsible and transparent. The police may not be able to run their stations efficiently due to this bad administration. To solve this problem, a digitalized malkhana management system was put in place. In this article, it is proposed that the project Digitalized Malkhana, which manages case properties more expertly and digitally, be put into practice. This innovative initiative is an online tool for updating and digitizing police Malkhanas. While the thana dashboard section is used for Digitalized Malkhana administration of each individual thana, the admin component is used to manage and control several thanas. This integrated cloud system has several different features. In police stations, courts, and other government institutions, seized items or evidence are kept in a malkhana. The inventory and transactions of a malkhana can be managed using a computerized system called a digitalized malkhana management system. The system provides a user-friendly interface for saving, tracking, and retrieving items as well as for creating reports and conducting analytics. Ultimately, the Digitalized Malkhana Management System is an essential tool for any government agency dealing with evidence or confiscated commodities since it streamlines the process, enhances security, and ensures compliance with legal norms.**

Keywords—Digitalized Malkhana Management System, Criminal Prevention, Police Station, Cloud System, Seized items, Evidence, Transparency, Security Capabilities, Access Control, Productivity, Legal Compliance

I. INTRODUCTION

The term "Malkhana," which derives from the Persian words "Mal" (property) and "Khana" (space), describes the location where items gathered during an initial investigation or items seized by the police during an investigation under the Criminal Procedure Code, 1973 (Cr.PC), and various Special and Local Laws, are kept secure until they must be produced before the appropriate magistrate or court. The efficient upkeep of malkhana records is one of the biggest problems in police stations. When there is no automated system in place, there is a surplus of manual paperwork. Another difficult task is keeping records using the Malkhana register. The retrieval of precise and accurate information on the case assets will be made easier by the digitization of Malkhana records. An electronic transformation of case characteristics has resulted from the project's provision of distinctive QR code IDs and suitable packaging. Using computer-coded identification of the seized property, automated identification and data capture technologies, electronic device security, building a database for indexing Malkhana articles and documents, using specialized and user-friendly software, using compactors to store records, documents, and small items Topic segregation, RFID tag identification, and document or piece tagging are all methods used in this endeavor to safeguard evidence.

A. Chain Of Custody

The maintenance of the chain of custody is facilitated by an efficient Malkhana management system. The items are kept at the Malkhana after being removed by the police, where they may be returned anytime needed by properly registering them in the registers and records kept there. Malkhana Registers are sometimes necessary in legal processes to demonstrate a correct chain of custody, or lack thereof. The chain of custody is used to show the validity and integrity of the evidence in order for it to be accepted as evidence in a court of law.

B. Safety and Security of Seized Articles

The safety and security of the confiscated things are of the highest importance because they are believed to be under the custody of the state. The integrity and admissibility of the evidence in court are significantly impacted by the safety and security of the items that have been confiscated in the police malkhana management system.

To preserve the safety and security of seized things in the police malkhana management system, strong regulations, access limits, frequent monitoring, suitable maintenance, regular audits, and proper paperwork are all necessary.

C. Quick Disposal

The items must be disposed of either by returning them to their lawful owners or in accordance with other instructions granted by the appropriate court, depending on when the matter has been fully resolved. Concealed items, especially automobiles, may take up a lot of room at police stations. They are more prone to theft and natural degradation from the environment if left outside.

The following measures are used in the police malkhana management system to guarantee quick disposal:

1) Legal Disposal: The law, which outlines the processes and deadlines for disposal, is followed when disposing of seized items.

2) Auctions: Seized items that are no longer needed as evidence may be sold at public auction or donated to charity organizations.

3) Return to Owner: Items that belonged to an innocent person and were taken may be restored to them once the judicial procedure is over. By doing this, the malkhana is under less strain and extra storage expenses are avoided.

4) Regular Evaluation: It's crucial to routinely inspect the items in the malkhana to identify those that can be discarded.

5) Management: Quick disposal of seized items can be facilitated by efficient administration of the malkhana, which includes regular inventory checks, accurate record-keeping, and personnel training.

II. METHODOLOGY

This Digitalized-Malkhana system is accessible from anywhere using any internet-capable device because it is deployed online. The process begins with the district administrator completing Thana's registration. After registration, any Thana operator will be able to use the Digitalized-Malkhana application. It is possible to create and store each new case property item in the database. A printed label is produced after each entry and placed on the box for straightforward property monitoring. For existing case property, the application offers a feature that makes it simple to import data using an excel file. When a person or piece of property has a problem or has to be returned, the operator can search databases and update the status.

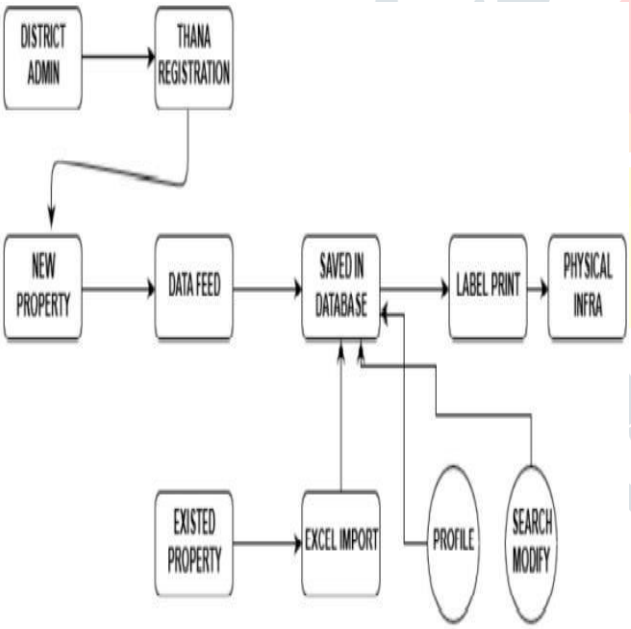

Fig. 1. Process Flow of Digitalized-Malkhana.

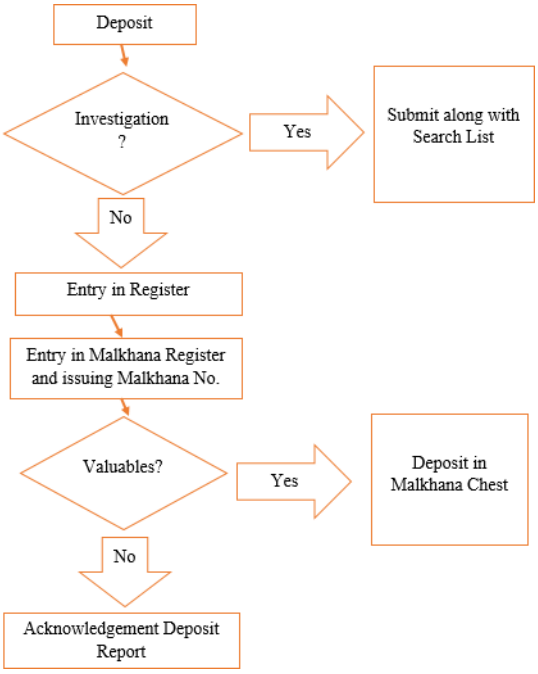

Fig. 2. Process Flow of Digitalized-Malkhana (Deposit).

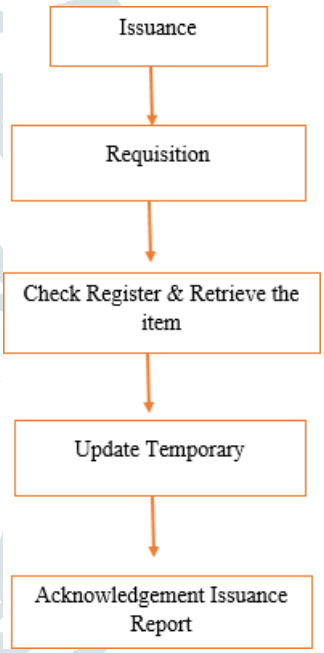

Fig. 3. Process Flow of Digitalized-Malkhana (Issuance)

A. *Security of Malkhana Property*

Multiple pieces of evidence call for improved Malkhana property security. It is understood that this category includes money assets, priceless goods, weapons, and narcotics. Therefore, these items should always be stored separately in the secure part of the property room. Another strategy is the installation of motion-activated security cameras within the Malkhana and in the vaults housing the weapons, drugs, cash, and jewelry. The use of several key vaults is an additional. Such video is valuable as proof in the case of a theft and serves to discourage employee theft.

B. *Security of Electronic Devices*

Numerous electronic items are seized and housed at the Malkhana, including laptops, mobile phones, and other gadgets with considerable evidence significance. There is a possibility of damaging electrical equipment when employing high intensity magnetic field devices. The materials used to build the Malkhana and to package these electrical things should thus shield them from magnetic damage.

C. *Automated Identification and Data Capture Technologie*

The first method uses bar coding, in which a sticker with a unique code that can be read by a barcode scanner is used to label an item. A barcode is an optical, machine-readable representation of data about an object. One of the most popular barcode kinds is the Universal Product Code (UPC). It is inexpensive and easy to execute. The two different kinds of barcodes are linear (2D) and two-dimensional (1D). In linear barcodes, bars and spaces are concatenated onto a single line.

In linear barcodes, hardly much information can be stored. In a horizontal barcode, nine data characters may typically fit in every inch of space. A 2D barcode is made up of a square or rectangular grid of black and white "cells" or modules on a white backdrop.

III. ACKNOWLEDGMENTS

We are really grateful that so many people offered their support and advice to us during the course of our project since it was crucial to its growth and outcome. We would want to use this chance to convey our appreciation for their support and advice throughout everything we have achieved.

We are grateful to Dr. Vipul Vekariya, dean of PIET, Dr. Amit Barve, head of the CSE department, and Prof. Kishori Shekokar for giving us the opportunity to work on the B.Tech CSE project and for giving us the guidance and support we needed to finish it correctly. They also showed interest in our work and helped us throughout the entire process until it was completed by giving us access to all the data needed to build a reliable system.

IV. REFERENCES

[1] Police, D. (n.d.). MAINTENANCE of POLICE STATION RECORDS. Retrieved from bprd.nic:https://bprd.nic.in/WriteReadData/userfiles/file/1930072729 Maintenance

[2] Sanjay, S. N. (2021). Micro Mission - 4(Infrastructure). Retrieved from bprd.nic: https://bprd.nic.in/WriteReadData/userfiles/file/202010211235100597 064Malkhana Management System Project(MM04).pd

[3] Tiwari, Singh, IPS Ashish, Adarsh Kumar., 2021. SVP National Police Academy Journal,LXXIvol., 2nd ed. Hyderabad- SVP National Police Academy

[4] ”e-Malkhana Project Launched in West District”, Author: ”Punekar News” Date: June 17,2022” The e-Malkhana Project is a digitization initiative that aims to make all case properties in the West

[5] Thakur, A. (2019, june 20). Uttar Pradesh: 486 liquor cartons missing from police strong room. Retrieved from indiatoday: https://www.indiatoday.in/india/story/uttar-pradesh-liquorcartons-missing-police-strongroom-1552717-2019-06-20

[6] Bhattacharjee, S. (2021, July 02). Police devise novel way to store seized evidence. Retrieved from thehindu: https://www.thehindu.com/news/national/andhra-pradesh/police-devise-novelway-to-store-seized-evidence/article35088489.ece

[7] Dubey, V. (2018, Dec 29). Delhi Police becomes first police force in country to digitise all malkhanas. Retrieved from businesstoday: https://www.businesstoday.in/latest/story/delhipolice-becomes-first-police-force-in-country-to-digitise-all-malkhanas-124691-2018-1

[8] Manishsiq. (2023, May 19). E-Malkhana concept is changing the modern policing in Chattisgarh. Retrieved from studyiq: https://www.studyiq.com/articles/e-malkhana-conceptis-changing-the-modern-policing-in-chhattisgarh/

[9] Mehta, K. (2018, Aug 04). Southeast district malkhanas go digital. Retrieved from indiatoday: https://www.indiatoday.in/mail-today/story/southeast-district-malkhanas-godigital-1304939-2018-08-03

[10] Subhojyoti, D. G. (2012, Aug 01). Kolkata: Alipore Police Ststion Kanjilal Introduces e-malkhana. Retrieved from timesofindia.indiatimes.com: https://timesofindia.indiatimes.com/city/kolkata/alipore-ps-introduces-emalkhana/articleshow/84932237.cms

[11] Modal, D. (2022, April 09). Digitised Malkhanas help Delhi Police to do smart policing. Retrieved from sundayguardianlive: https://sundayguardianlive.com/news/digitised-malkhanas-help-delhi-police-smart-policing