LOAN MANAGEMENT SYSTEM

AUTHOR: Mrs. N. REVATHI, MCA., M.Phil.

ASSISTANT PROFESSOR

DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

Dr.N.G.P ARTS AND SCIENCE COLLEGE, COIMBATORE-48

CO-AUTHOR: DHIVYA SRI.S, SUBASHINI.B

DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

Dr.N.G.P ARTS AND SCIENCE COLLEGE, COIMBATORE-48

1.1 ABSTRACT

The "LOAN MANAGEMENT SYSTEM FOR PJ&CO" project is in charge of handling loan data for the lending business PJ&CO. All lists of information used in a loan transaction will be arranged by it. The purpose of a Loan Management System (LMS) is to automate and simplify the procedures involved in managing loans during their whole lifespan. The list of borrowers, loan types, and loan plans will be filled up by a Loan Management System administrator. This information will be used to identify and filter requests and active loans.

User permission and authentication are two of the Loan Management System's primary features, providing safe access to different positions inside the company. This technology may also determine the monthly payment amount based on different loan arrangements. An essential component is loan repayment management, which enables adjustable payback plans and automates computations for remaining amounts, interest, and penalties. It is a platform made to gather, organize, and distribute credit data about people and companies.

Keywords: Loan, Web application, User Management, Backend, Due dates.

1.2 OVERVIEW OF THE PROJECT

The administrator of this loan management system will simply select the borrower's desired plan and amount. The admin can then check the monthly payment amount, total amount payable (including interest), and monthly penalty amount for past due amounts by simply clicking the compute button. It also includes data from people who apply online for loans and submit necessary documents that are processed through an automated procedure for approval. Employees of the organization are able to examine applications, seek further information, and decide whether to approve or reject them with

knowledge. Robust interest rate computation processes are integrated into the system, taking into account various parameters like loan amount, duration, and consumer creditworthiness.

- Loan procedures are streamlined, requiring less manual labor and increasing operational effectiveness.

- Data management and automated computations improve accuracy and lower the possibility of mistakes.

- Sturdy risk management instruments assist lenders in identifying and reducing any hazards related to loans.

- Its security measures safeguard sensitive financial and personal information, guaranteeing data integrity and confidentiality.

- It ensures measures to regulatory standards, lowering the risk of legal and financial penalties.

SYSTEM REQUIREMENTS

2.1 INTRODUCTION

System requirements are the parameters and standards that specify the hardware, software, performance, and additional elements required for a computer system or software program to operate as intended. These defined criteria serve as a roadmap for the system's creation, deployment, and use, guaranteeing that it achieves its goals and runs well. The configuration that a system needs in order for hardware or software to function properly and efficiently is known as system requirements. If any of these prerequisites are not met, installation or performance issues may arise. It's specs that list the minimal and suggested configurations of hardware, software, and peripherals required for a computer system to function properly when running a given software program, operating system, or piece of hardware. These specifications act as a guide for users.

The key specifications that list the setups and capabilities required to run particular software programs on a computer system are known as hardware and software requirements. These specifications guarantee top performance, interoperability, and a seamless user interface. System requirements are critical to understanding the infrastructure and circumstances needed for improved performance, for both developers and end users. The following are typical system requirements components:

1. Software requirements
2. Hardware requirements

2.2 SOFTWARE REQUIREMENTS

Software requirements outline the setups and parts of software that a computer system needs in order to properly run a specific application or system. Software is a term used to describe a collection of programs, data, or instructions that allow a computer to carry out particular operations. It is a group of instructions in a programming language that tells a computer how to function. Depending on the kind of software being utilized, there can be significant differences in the specific requirements. The following specifications are suggested:

- Windows 10 is the operating system.
- Front-end: HTML5
- MySQL 8.0 is the backend.

2.3 HARDWARE REQUIREMENTS

Hardware requirements outline the parts and setups that a computer system needs in order to support a specific software program or system. The following specifications are suggested:

- 500GB Hard Drive
- Lenovo SVGA Color Monitor
- Keyboard: LOGITECK; Mouse: INTEX
- Processor: Core i3 Intel
- Memory: 2 GB

SYSTEM DESIGN

3.1 EXISTING SYSTEM

A financial corporation called PJ&CO used a manual credit information management system when lending money to clients based only on credit. An organization's current software programs, databases, and other technologies are referred to as the "existing system." This is less computerized in PJ&CO and comprises both off-the-shelf and custom-built solutions. The disadvantages are overcome to produce an improved system that is fundamentally created.

DISADVANTAGES

The disadvantages of existing system are listed as follows:

1. Disjointed Data Archiving:

   Because of the vast amount of storage in the current system, credit-related data is dispersed over numerous databases or notes, causing data fragmentation. Gaps in storage space may appear over time as data are added, removed, or altered. The system may become more fragmented if regular defragmentation—the process by which the file system rearranges and consolidates fragmented data—is not performed.

2. Issues with Data Security:

   Inadequate and ineffectual security measures may put critical consumer information at risk. Data leaks, legal infractions, and reputational issues can all result from security flaws and laws protecting data. Other weaknesses in the system could lead to security breaches, expose private client information to dangers, undermine confidence, and put financial

   Reporting.

3. Problems with Scalability:

   The current system may become antiquated and unable to manage the growing demands of a wider client base as the financial organization expands. It is also challenging to modify and accommodate the growing number of credit-related data and transactions. Loan management may face challenges due to a rise in loan volume or a rising customer base.

3. Integration:

It is of third-party services or insufficient system functionality might lead to inefficiencies. Decision-making may take longer than expected, human data entry is necessary, and ineffective connections may result in data mismatches.

4. Inadequate Process:

The entire loan next generation and approval process could be impacted by inefficient workflow operations. The system may make mistakes, errors, and incur higher operating expenses if it is deficient in efficiency and optimization characteristics.

3.2 PROPOSED SYSTEM

The Enhanced Loan Information Management System (LMS), the proposed system, is intended to address the issues with PJ&CO's present credit information management system. Modern technology is used by LMS to provide a sophisticated, efficient, user-friendly, safe platform for gathering credit-related data from clients. By addressing the shortcomings of current systems, the proposed system seeks to enhance overall loan management procedures through the integration of newly developed functionalities.

ENHANCEMENTS

The following is a list of the suggested system's benefits:

- It offers a clear picture of consumer credit profiles,
- It reduces the possibility of data breaches,
- It permits real-time credit account monitoring,
- It lowers the need for training, standardizes workflow methodologies,
- To adapt to the increasing amount of credit-related data and transactions,
- It aids in financial inclusion by evaluating borrowers' creditworthiness,
- Preserving the privacy of the data,
- Facilitating access to the loan data,
- Centralized data collection for easier management and access,
- It does away with data fragmentation.

ADVANTAGES

1. Information Safety:

Strong security protocols guard against illegal access and data breaches while guaranteeing the confidentiality and integrity of critical borrower data. In order to safeguard confidential data, guarantee regulatory compliance, and uphold client confidence, data security in a loan management system is critical.

2. Efficiency and Automation:

Automating loan processing can streamline the process and save a lot of time and effort compared to manual procedures. Loan application processing, approval, and distribution can all be accelerated with the use of automated workflows. In a loan management system, automation and efficiency are

essential for streamlining procedures, cutting down on human labor, minimizing errors, and increasing overall production.

3. Better Decision Making:

By analyzing historical data, lenders can uncover patterns in borrower payment behavior that help them better understand how consistently borrowers meet their financial obligations. Additionally, advanced analytics and reporting tools can offer lenders insightful information about borrower behavior, credit risk, and market trends. Monitoring borrowers' credit line usage gives information about their risk and spending patterns.

4. Financial Savings:

Automation saves the business money by eliminating the need for physical storage, paperwork, and labor-intensive tasks. It involves cutting back on or avoiding expenditures and expenses, which improves resource allocation and lowers an individual's, an organization's, or a business's overall operating costs. Cost-cutting strategies are used to raise profitability, strengthen financial performance.

5. Real-time observation:

The term "real-time monitoring" describes the minimally latency and continuous observation of events, data, or processes as they happen. Real-time monitoring offers instant insights into ongoing operations in the context of diverse systems, technologies, or surroundings, facilitating quick responses, analysis, and decision-making.

CONCLUSION

In conclusion, PJ&CO must deploy the "LOAN MANAGEMENT SYSTEM" (LMS) in order to pursue secure and effective lending operations. By automating the loan origination, processing, and monitoring processes, an LMS improves accuracy, lowers human error, and expedites the loan lifecycle in its entirety. Effective risk management is made possible by the system, which guarantees that lending decisions are supported by thorough data analysis. Furthermore, the Loan Management System encourages accountability and transparency by giving administrators and staff instant access to pertinent data. The technology reduces legal risks and guarantees compliance by adjusting to changing regulatory requirements All things considered, a loan management system is an essential instrument for improving operational effectiveness, reducing risks, and cultivating a stronger, manager-focused strategy for the lending industry.