



[Click here to write the manuscript category](#)

Design of a Financial Report Information System in a Pharmacy K-24

Fanny Ramadhani ¹, Andy Satria ², Salamah ³

¹ Faculty of Mathematics and Natural Sciences, Department of Computer Science, Universitas Negeri Medan, Medan, Indonesia

² Faculty of Engineering and Computer Science, Department of Information Technology, Universitas Dharmawangsa, Medan, Indonesia

³ Faculty of Medicine, Department of D3 Nursing, Universitas Malikulsaleh, Aceh, Indonesia

ARTICLE INFORMATION

Accepted by the Editor: 00 January 00

Final Revision: February 00, 00

Published Online: March 00, 00

KEYWORDS

K-NN algorithm; Pharmacy; Mysql

CORRESPONDENCE

Phone: +6282280575321

E-mail: fannyr@unimed.ac.id

A B S T R A C T

An obstacle that is often found in making financial reports manually is errors in writing down financial report data. Apart from that, the user (admin) has to calculate manually to add up the financial reports, so that sometimes errors appear in adding up the financial reports. Another obstacle is that the user (admin) requires a longer time to input financial reports manually. With the existence of a financial reporting information system with using mysql and the K-NN algorithm can help users make decisions in making financial reports. By designing this financial information system, pharmacy owners can easily determine whether the pharmacy is making a profit or loss in financial reports. Users (admins) can also create reports from each data, such as daily, monthly and annual income data reports, as well as daily, monthly and annual expenses, reports on types of goods and other.

INTRODUCTION

An obstacle that is often found in making financial reports manually is errors in writing down financial report data. Apart from that, the user (admin) has to calculate manually to add up the financial reports, so that sometimes errors appear in adding up the financial reports. Another obstacle is that the user (admin) requires a longer time to input financial reports manually. With the existence of a financial report information system using MySQL and the K-NN algorithm, it can help users make decisions in preparing financial reports.

By designing this financial information system, pharmacy owners can easily determine whether the pharmacy is making a profit or loss in financial reports. Users (admins) can also create reports from each data, such as daily, monthly and annual income data reports, as well as daily, monthly and annual expenses, reports on types of goods and other reports.

Difficulties in making financial reports can be overcome correctly, from inputting transaction data to making balance reports. So the report is more effective and accurate. Apart from that, making financial reports can run more effectively and accurately because it uses the K-NN (K-Nearest Neighbor) algorithm.

The K-NN algorithm is a classification method for a set of data based on learning data that has been previously classified. Where are the query results New instances are classified based on the majority of closeness distances from the categories in K-NN.

SITUATION ANALYSIS

Measurement and Observation Parameters

Research analyzes the financial report information system using the K-NN algorithm.

Research Model

The research method used is literature study. Deepening the concept of a proposition by collecting literature related to the method using basic/pure research.

Data Collection and Analysis Techniques

The data collection method used to build software is the library research method through books related to the software to be built. Carry out an analysis of existing systems so that the information obtained provides a clear picture of the materials needed to create a basic framework for design and development related to network monitoring.

IMPLEMENTATION METHOD

Description of the research stages carried out are:

- Identification of Problems**
Problem identification is the first step in research which aims to build a financial reporting information system application using the K-NN algorithm.
- Problem Analysis**
At this stage, an analysis of the needs of the research object is carried out, as well as analyzing the elements needed by the research object.
- Results and Discussion**
The results and discussion of this research will be carried out after completing the analysis stage using the results from that stage. The results and discussion aim to check whether or not the implementation is in accordance with the results of the previous stage.
- Conclusion**
This stage will produce information about the results of the system and designs that have been built.

RESULTS AND DISCUSSION

This research applies an Information System with the K-NN algorithm in analyzing financial reports. The existing pattern describes the balance sheet, profit and loss report.

In the process of creating a financial reporting information system, all existing itemsets are considered as input to Data Mining. All itemsets are processed using the K-NN algorithm so that association relationships are formed between itemsets to determine valid data. For the frequency of appearance of the financial report dashboard for each item, you can see the image below:



Figure 1. Financial Report Dashboard Display

Figure 1 shows the initial display of the pharmacy financial report dashboard. On the dashboard there are several menus for filling out financial reports.

To input financial transaction categories, see the image below:

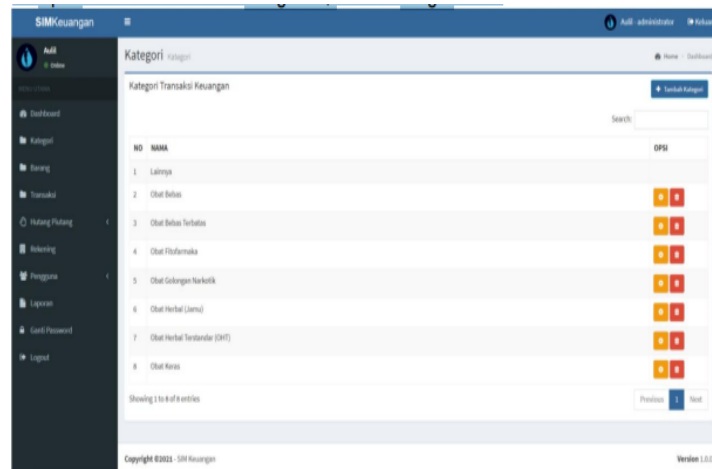


Figure 2. Financial Transaction Categories

Figure 2 shows the financial report categories displayed when carrying out transactions.

To input items or products, see the image below:

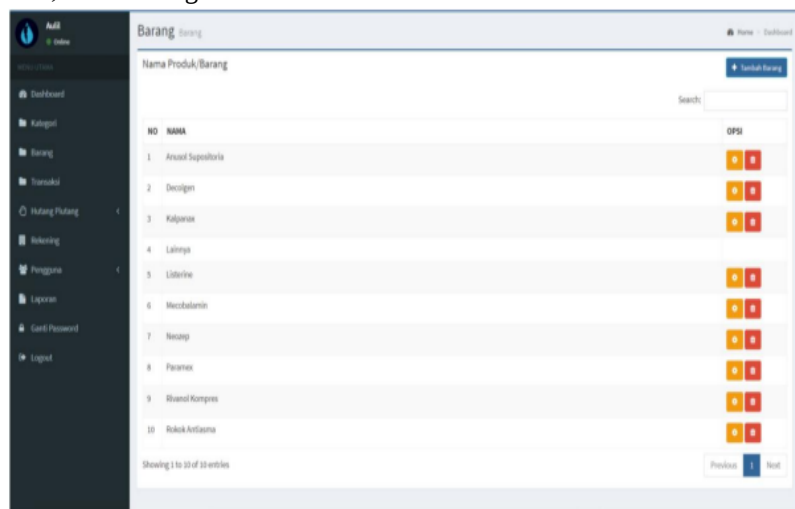


Figure 3. Input of Goods or Production

Figure 3 shows the financial report display when inputting transactions.

To input income and expenditure transactions, see the image below:

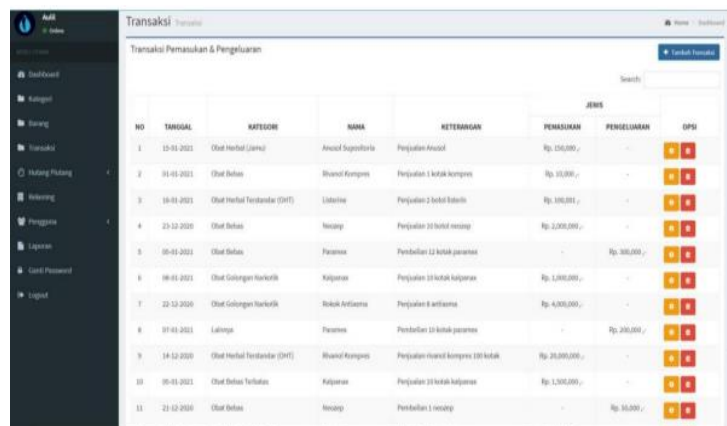


Figure 4. Income and Expenditure Transactions

Figure 4 shows the display of income and expenses in the financial report.

To see the input of debt data, see the image below:

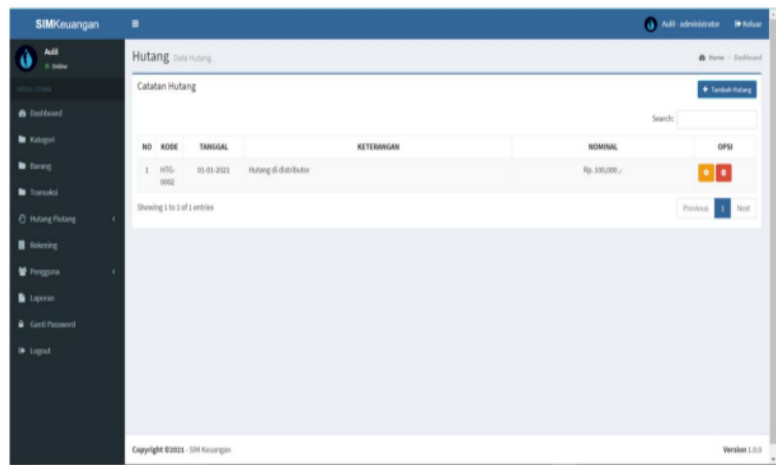


Figure 5. Input Notes or Debt Data

Figure 5 shows a display showing the financial report database.

To see the input of receivables data, see the image below:

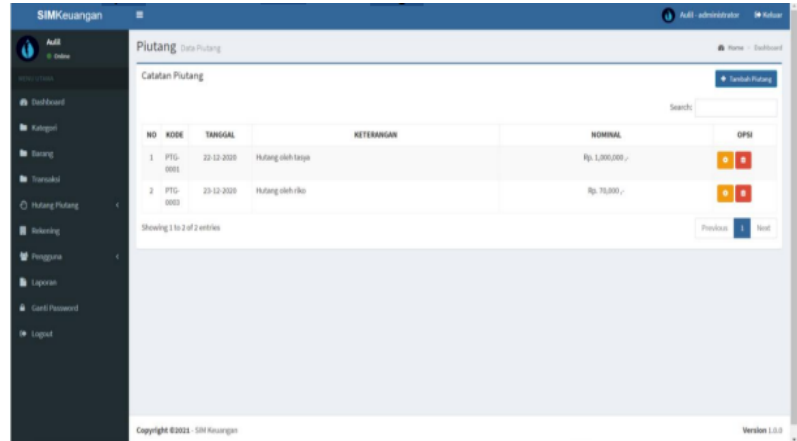


Figure 6. Input Notes or Receivables Data

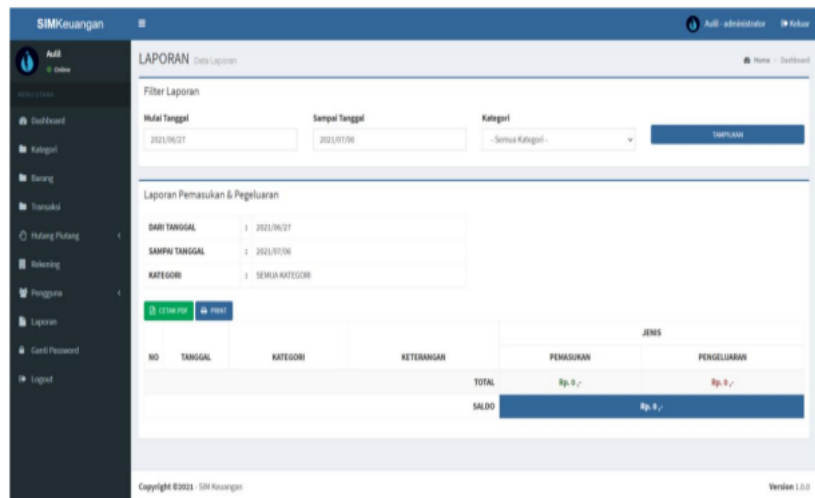


Figure 7. Financial Report Data Input

Figure 7 shows the overall data in the pharmacy financial report.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the research and discussion, the following conclusions are obtained: The K-NN algorithm is an appropriate method to be applied to financial report information systems because it helps users in analyzing financial reports. This helps users (admins) to improve performance.

Summarize the results of community service in the form of successes and obstacles found in activities. The obstacles listed in this section are an opportunity for the author to convey suggestions for sustainability and improvement in the future.

The analysis results show that the financial reporting information system is more effective, efficient and accurate.

BIBLIOGRAPHY

Journal Article:

- Sari, I.P., & Batubara, I.H. (2021). Perancangan Sistem Informasi Laporan Keuangan Pada Apotek Menggunakan Algoritma K-NN. Seminar Nasional Teknologi Edukasi dan Humaniora (SiNTESa), 2021-1
- Sari, I.P., Jannah, A., Meuraxa, A.M., Syahfitri, A., & Omar, R. (2022). Perancangan Sistem Informasi Penginputan Database Mahasiswa Berbasis Web. Hello World Jurnal Ilmu Komputer 1 (2), 106-110
- Sari, I.P., Azzahrah, A., Qathrunada, I.F., Lubis, N., & Anggraini, T. (2022). Perancangan sistem absensi pegawai kantor secara online pada website berbasis HTML dan CSS. Blend sains jurnal teknik 1 (1), 8-15
- Sari, I.P., Syahputra, A., Zaky, N., Sibuea, R.U., & Zakhir, Z. (2022). Perancangan sistem aplikasi penjualan dan layanan jasa laundry sepatu berbasis website. Blend sains jurnal teknik 1 (1), 31-37
- Hariani, P.P., Sari, I.P., & Batubara, I.H. (2021). Android-Based Financial Statement Presentation Model. JURNAL TARBIYAH 28 (2), 1-16
- Sari, I.P., & Batubara, I.H. (2021). User Interface Information System for Using Account Services (Joint Account) WEB-Based. International Journal of Economic, Technology and Social Sciences (Injects) 2 (2), 462-469
- Satria, A., Ramadhani, F., & Sari, I.P. (2023). Rancang Bangun Sistem Informasi Penerimaan Peserta Didik Baru (PPDB) Sekolah Menengah Kejuruan Telkom 2 Medan Menggunakan Codeigniter. Wahana Jurnal Pengabdian kepada Masyarakat 2 (1), 23-31
- Sari, I.P., & Ramadhani, F. (2021). Pengaruh Teknologi Informasi Terhadap Kewirausahaan Pada Aplikasi Perancangan Jual Beli Jamu Berbasis WEB. Prosiding Seminar Nasional Kewirausahaan 2 (1), 874-878
- Hutasuhut, B.K., Sari, I.P., & Al-Khowarizmi, A. (2023). Analysis the Effect of Digitalization and Technology on Web-Based Entrepreneurship. Journal of Computer Science, Information Technology and Telecommunication Engineering 4 (1), 350-354
- Sari, I.P., Batubara, I.H., Al-Khowarizmi, A., & Hariani, P.P. (2022). Perancangan Sistem Informasi Pengelolaan Arsip Digital Berbasis Web untuk Mengatur Sistem Kearsipan di SMK Tri Karya. Wahana Jurnal Pengabdian kepada Masyarakat 1 (1), 18-24
- Ramadhani, F., & Sari, I.P. (2021). Pemanfaatan Aplikasi Online dalam Digitalisasi Pasar Tradisional di Medan. Prosiding Seminar Nasional Kewirausahaan 2 (1), 806-811
- Sari, I.P., Batubara, I.H., & Basri, M. (2022). Implementasi Internet of Things Berbasis Website dalam Pemesanan Jasa Rumah Service Teknisi Komputer dan Jaringan Komputer. Blend Sains Jurnal Teknik 1 (2), 157-163
- Sari, I.P., Batubara, I.H., Ramadhani, F., & Wardani, S. (2022). Perancangan Sistem Antrian pada Wahana Hiburan dengan Metode First In First Out (FIFO). Sudo Jurnal Teknik Informatika 1 (3), 116-123
- Sari, I.P., Al-Khowarizmi, A., & Batubara, I.H. (2021). Implementasi Aplikasi Mobile Learning Sistem Manajemen Soal dan Ujian Berbasis Web Pada Platform Android. IHSAN: JURNAL PENGABDIAN MASYARAKAT 3 (2), 178-183
- Sari, I.P., Ramadhani, F., Satria, A., Apdilah, D., & Basri, M. (2023). Rancangan UI/UX Aplikasi Analytics pada Toko Online Wao Sneakers Menggunakan Figma Berbasis Mobile. Factory Jurnal Industri, Manajemen dan Rekayasa Sistem Industri 1 (3), 93-101
- Sari, I.P., Ramadhani, F., & Al-Khowarizmi, A. (2021). User Interface Prototype Using User Centered System Design Method in Motorvice Information System. 2021 International Conference on Computer Science and Engineering (IC2SE) 1, 1-6
- Ramadhani, F., Satria, A., & Sari, I.P. (2022). Aplikasi Internet Berbasis Website sebagai E-Commerce Penjualan Komponen Sport Car. Blend Sains Jurnal Teknik 1 (2), 69-75
- Sari, I.P., Sulaiman, O.K., Al-Khowarizmi, A., & Azhari, M. (2023). Perancangan Sistem Informasi Pelayanan Masyarakat pada Kelurahan Sipagimbar dengan Metode Prototype Berbasis Web. Blend Sains Jurnal Teknik 2 (2), 125-134
- Sari, I.P., Hariani, P.P., Satria, A., & Manurung, A.A. (2023). Rancang Bangun Sistem Informasi Pengelolaan Arsip Materi Ajar Berbasis Web untuk Guru MAS Darul Falah. Wahana Jurnal Pengabdian kepada Masyarakat 2 (2), 59-65

- Ramadhani, F., Sari, I.P., & Satria, A. (2024). Perancangan UI/UX Surat Keterangan Waris dalam Pengembalian Dana Haji Berbasis Web. *Blend Sains Jurnal Teknik* 2 (3), 198-203
- Sari, I.P., Sulaiman, O.K., Ramadhani, F., & Satria, A. (2023). Perancangan Sistem Manajemen Surat Berbasis Web Pada Kantor Camat Tano Tombangan Angkola. *INCODING: Journal of Informatics and Computer Science Engineering* 3 (2), 61-76
- Batubara, I.H., Famella, A., Yossa, N.A., Yamin, M., Ramadhani, K., & Sari, I.P. (2021). THE INFLUENCE OF PROJECT-BASED LEARNING MODEL ON STUDENT LEARNING OUTCOMES IN SYLLABUS DEVELOPMENT, 429-434
- Guntur, S., Ichsan, A., & Sari, I.P. (2024). Designing a Web-Based Mail Management System at the Beringin Helvetia Sub-district Office. *Altafani: Jurnal Pengabdian Masyarakat* 1 (1)
- Sari, I.P., Al-Khowarizmi, A., Sulaiman, O.K., & Apdilah, D. (2024). System Design for Ordering and Digitizing Website-Based Bus Tickets. *Journal of Computer Science, Information Technology and Telecommunication Engineering* 5 (1), 543-549
- Sari, I.P., Al-Khowarizmi, A., Jannah, A., Meuraxa, A.M., & Tanjung, M.I. (2023). Web-Based Offline Game Suit Design: A Model Overview. *Journal of Computer Science, Information Technology and Telecommunication Engineering* 4 (2), 389-394
- Ramadhani, F., Satria, A., & Sari, I.P. (2022). Aplikasi internet berbasis website sebagai E-Commerce penjualan komponen sport car. *Blend Sains Jurnal Teknik* 1 (2), 1-7

Book:

- Janner Simarmata Arsan Kumala Jaya, Syarifah Fitrah Ramadhani, Niel Ananto, Abdul Karim, Betrisandi, Muhammad Ilham Alhari, Cucut Susanto, Suardinata, Indah Purnama Sari, Edson Yahuda Putra. (2024). *Komputer dan Masyarakat*. Yayasan Kita Menulis
- Sari, I.P. (2021). *Buku Ajar Pemrograman Internet Dasar*. Umsu Press