Electronic, Business, Management and Technology Journal
Vol. 1 No. 1, June 2023, 40 – 51

Web-Based Price Estimation and Data Entry Application in Pawnshops (Case Study on One of The Private Pawnshop Companies in Bandung)

Rio Febrian[1], Rohmat Nur Ibrahim[2]
STMIK Mardira Indonesia, Bandung [1,2]
Email: riofebrian@gmail.com[1], rohmat@stmik-mi.ac.id[2]

ABSTRACT

This study introduces a web-based application that has been developed to offer price estimation services and facilitate data input within pawnshop establishments. The primary objective of this program is to optimize the effectiveness of collateral evaluation procedures and streamline data entry for pawnshop personnel. The application's development methodology integrates web technology and advanced data management systems to enhance the accuracy and efficiency of price evaluation. The application's users will be able to access it via the web-based platform, where they may input pertinent collateral information. Subsequently, they will receive prompt and precise price estimates. The experimental findings suggest that this application can enhance productivity and mitigate the risk of human errors in the pricing calculation procedure. In addition, the web interface's user-friendly design enhances the application's ease of adoption among pawnshop officers. This application is anticipated to streamline customer care procedures and improve overall customer satisfaction within the pawnshop establishment.

Keywords: Price Estimation, Data Input, Web

INTRODUCTION

Pawnshops are financial institutions that provide credit services to individuals in the community, allowing them to access money promptly. (Qomariah, Pangestu, Herlambang & Putu, 2021) Pawnshops significantly bolstered the economy, particularly for individuals from the lowest to middle socioeconomic classes, aligning with their guiding principle of "Resolving Challenges Without Compounding Them." One notable benefit of pawnshops is

that they allow customers to obtain immediate finances without liquidating their possessions. (Nicolini & Cude, 2019; Skully, 2019; Miller, Hanke & Di, 2018) Individuals can utilize them as collateral rather than selling their items outright when seeking a loan. Upon the complete repayment of the loan, the pledged items may be reclaimed by the borrower, subject to the specified time constraint established by the pawnshop. (Hardiansyah, 2022; Badriyaha et al., 2020) Suppose the borrower cannot fulfill their repayment obligations within the designated timeframe. In that case, they can seek an extension, wherein they would solely be required to remunerate the accrued interest. Pawnshops also contribute to and endorse government initiatives in economic and national advancement by extending loans to the general populace, wherein movable assets are pledged as collateral, assuring their commensurability with the borrowed sum. (Bondarenko, & Sitenko, 2020; Korinko & Kostenko,2018)

A private pawnshop enterprise has become a prominent alternative financing option in Indonesia, particularly in smaller urban areas. In essence, individuals engage in pawning their possessions to acquire a monetary loan, which can be repaid at their discretion, circumventing the need to adhere to a predetermined deadline. Nevertheless, the creditor retains the option to settle the outstanding obligation by a single payment or a series of periodic payments. Hence, if the obligation remains unpaid one day past the stipulated due date, it is permissible to submit a request for an extension, granting an additional month for repayment. If the pledged objects are not reclaimed within the specified timeframe, the pawnshop will proceed with an auction or sale of those things. (Harahap, R. A; Soemitra & Muda, 2021; Jalaludin et al., 2023)

The preceding statement provides an overview of the foundational structure of a pawnshop. Regrettably, the utilization of Excel (manual entry) persists in estimating prices and inputting customer data within certain private pawnshop enterprises. (Viskovich, & Pakenham, 2018; Roy, J et al., 2019) This approach has limitations, including the potential for human mistakes during the recording process, the time-consuming nature of report generation, and the restricted access to only available data when the file is opened.

This is in opposition to the utilization of more sophisticated technology that is accessible in the contemporary period. Web-based apps provide enhanced transparency for data input

of pawning consumers since they can be conveniently accessible. (Iranmanesh et al., 2022; McDonald et al., 2022; Moon, 2018) Moreover, these applications enable the organization to generate comprehensive and precise reports on client data. Therefore, given the context above, the author is interested in undertaking a study titled "Web-Based Price Estimation and Data Input Application in Pawnshops: A Case Study of a Private Pawnshop Company in Bandung."

METHOD

The author utilizes a descriptive research methodology in their study. Descriptive research is a methodology employed to examine the current state of a collective of individuals, an entity, a circumstance, a cognitive framework, or a category of occurrences. This descriptive inquiry aims to methodically and objectively generate a comprehensive depiction, portrayal, or representation of the information, attributes, and interconnections among the phenomena under investigation.

The methodology employed for system development is Object Oriented Analysis and Design (OOAD). Object-Oriented Analysis and Design (OOAD) is a systematic approach to analyzing requirements by considering the classes and objects involved in the issue domain. This method informs the software architecture by focusing on manipulating system or subsystem objects. Object-Oriented Analysis and Design (OOAD) is a contemporary approach that entails a paradigm shift in problem-solving, employing models that align with real-world notions. The fundamental basis of creation is an entity encompassing a data structure and activity in a unified manner. Object-Oriented Analysis and Design (OOAD) is a comprehensive methodology that systematically examines and conceptualizes a system using an object-oriented perspective. This technique encompasses two distinct but interconnected processes: Object-Oriented Analysis (OOA) and Object-Oriented Design (OOD). Object-Oriented Analysis (OOA) is a systematic approach used to evaluate the needs of a system, focusing specifically on the classes and objects that are relevant within the organization's context. In software development, Object-Oriented Design (OOD) is a methodology that facilitates the structuring of software architecture by manipulating objects inside a system or its subsystems.

RESULT AND DISCUSSION

SYSTEM IMPLEMENTATION

Implementation Activities

Programming is a highly beneficial endeavor that facilitates the successful deployment of novel systems, as a well-designed and organized program can generate information by specific requirements. Before implementing the program, it is imperative to do thorough testing to ensure its error-free functionality. The testing process can be conducted for individual program modules, followed by comprehensive testing to verify proper and accurate integration. This part describes the visual interface of the application software, which has been developed based on the design specifications established during the system design phase.

Database

The database table structure display is part of the implementation of the tables in the database that will be accessed by the user.

1. Company Database

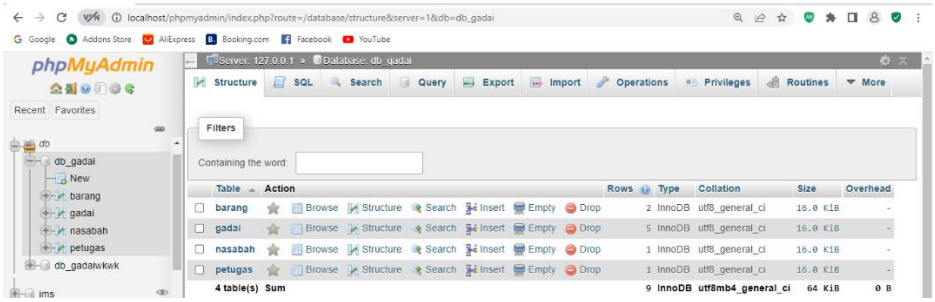

Figure 18. Company Database

2. Table is_tbl_gadai

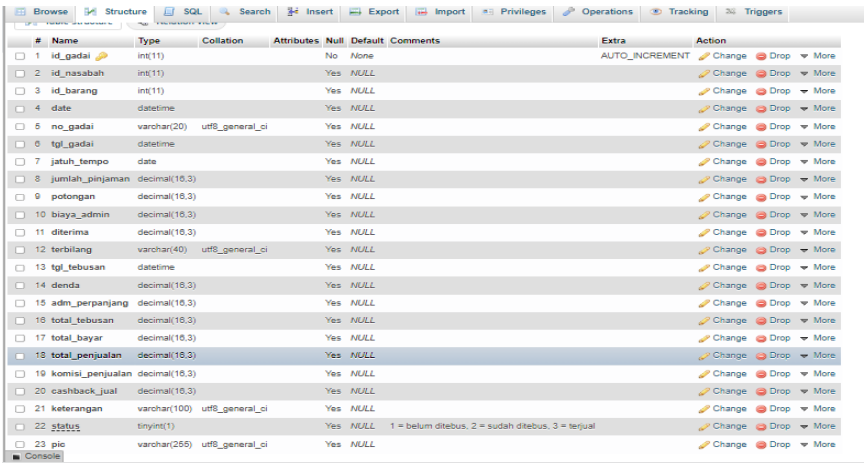

Figure 19. Table is_tbl_pawn

3. Table is_tbl_item

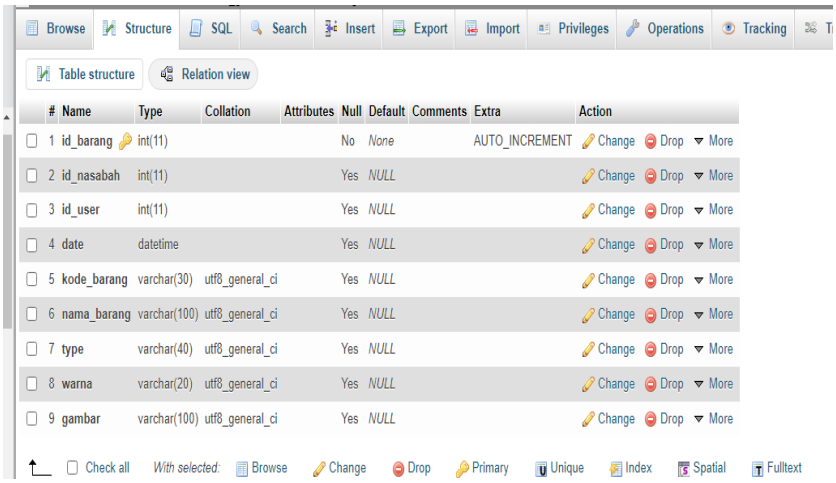

Figure 20. Table is_tbl_item

4. Table is_tbl_ officer

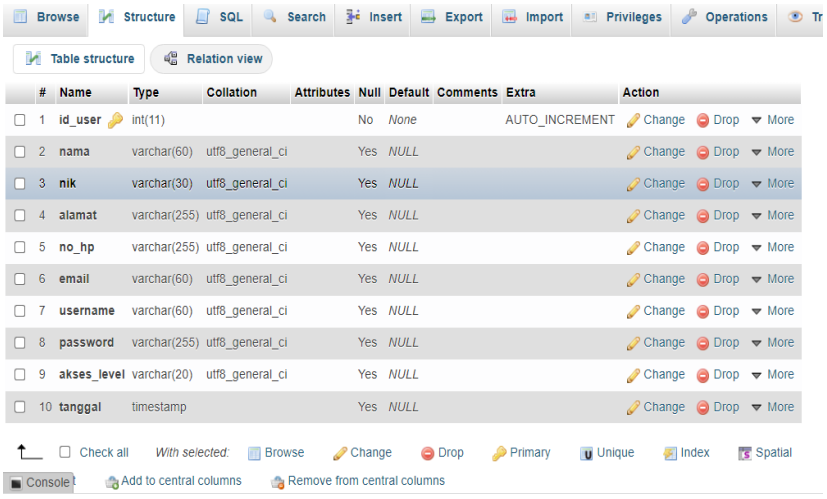

Figure 21. Table is_tbl_pekerja

5. Table is_tbl_customers

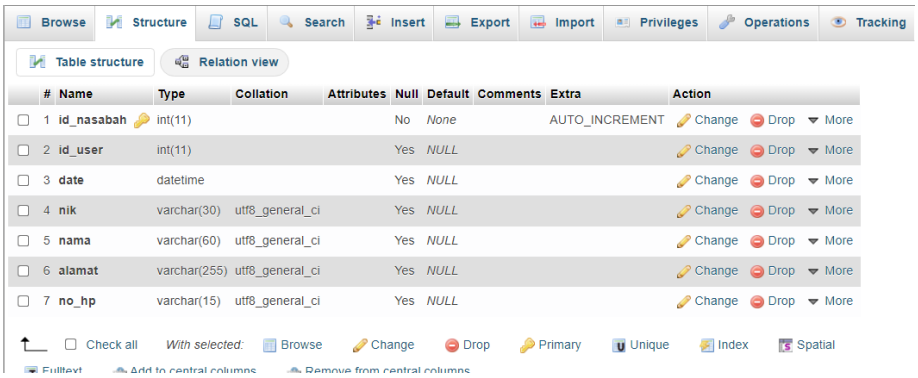

Figure 22. Table is_tbl_customer

Homepage

Upon initiating the application, the initial display that will be presented is the menu display. This menu display encompasses various options, including Dashboard, Estimates, Customers, Goods, Transactions, Change User Password, and Logout. The initial interface will present the login screen. The subsequent output is the visual representation produced by the application program.

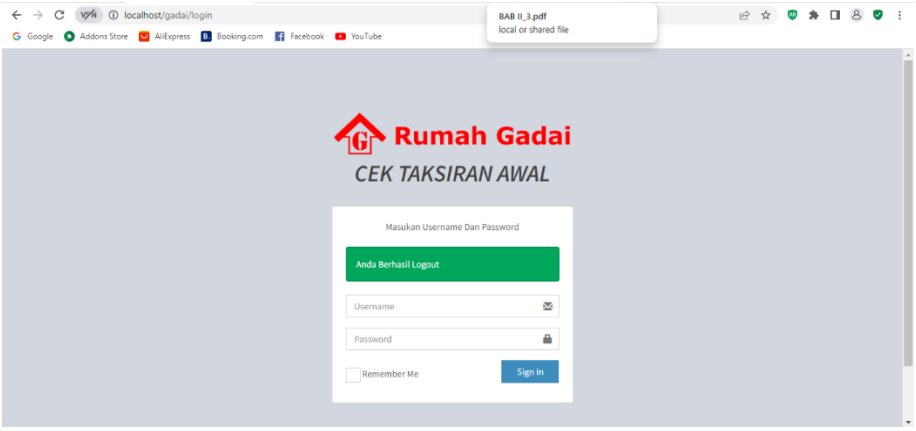

Figure 23. Implementation of the Login Form Display

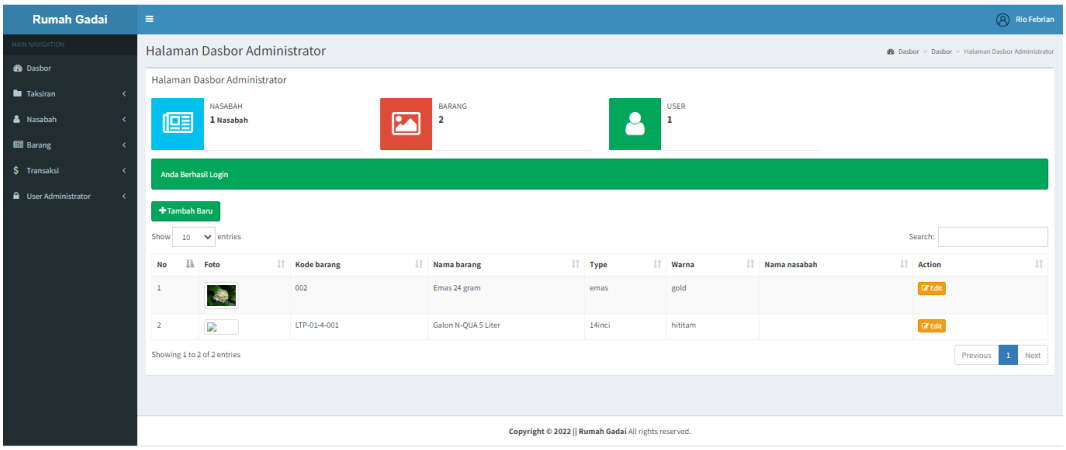

Figure 24. Implementation of the Dashboard Display

Input Page

Input design is an input design in the form of a form for entering data. Input/output design is also a reference for application makers in designing and building systems. Input design is the design of input from the user to the system which will then be stored in the database.

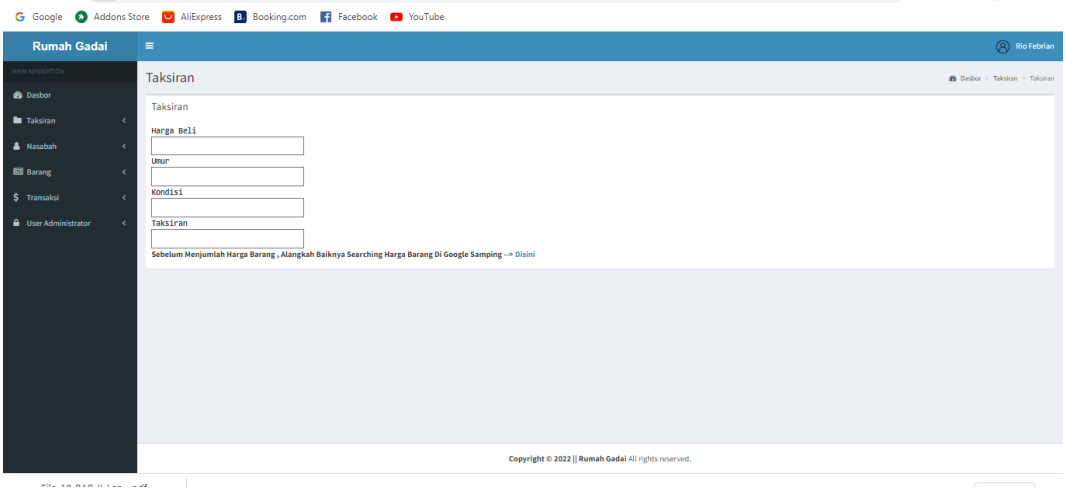

Figure 25. Implementation of the Estimated Price of Goods Display

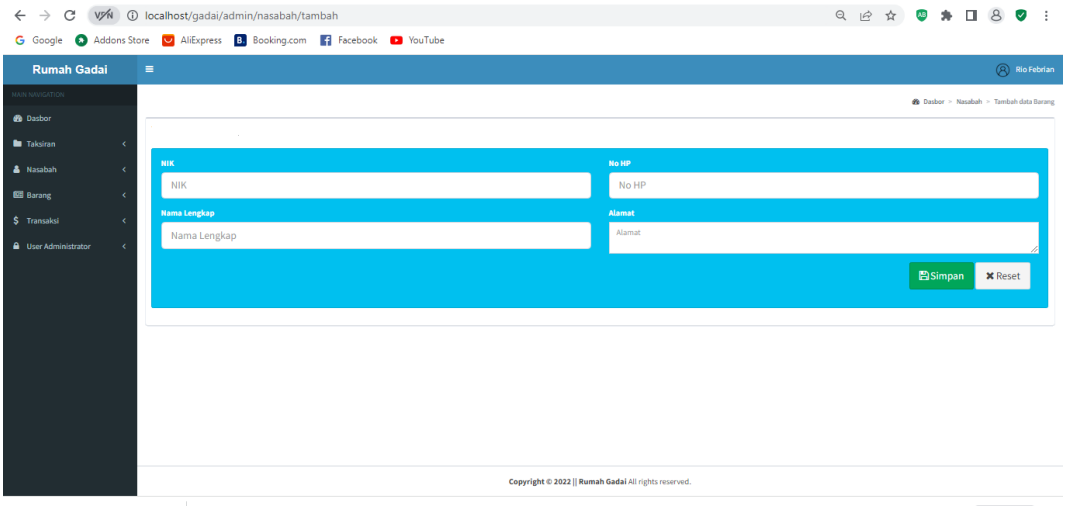

Figure 26. Implementation of the Customer Data Input Form Display

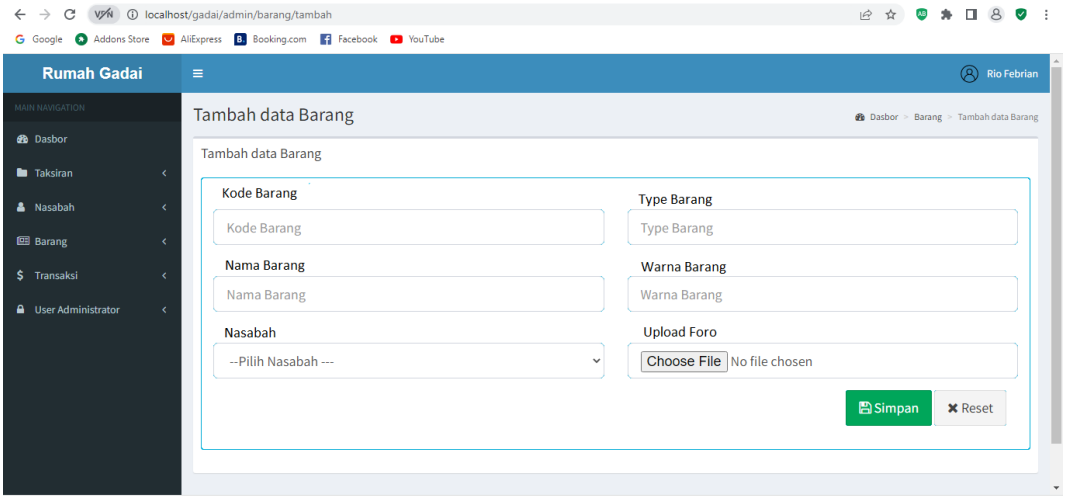

Figure 27. Implementation of Item Data Display

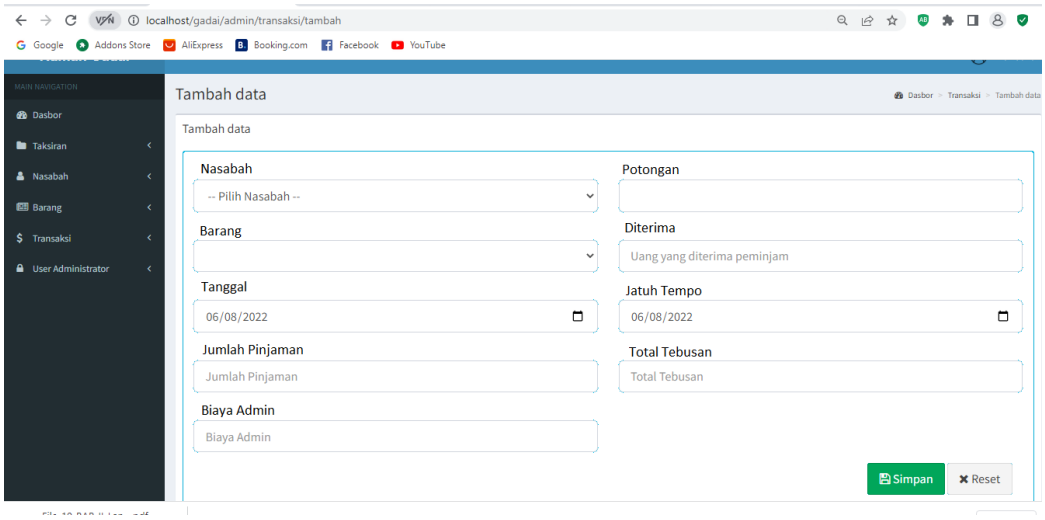

Figure 28. Implementation of the Transaction Data Input Form Display

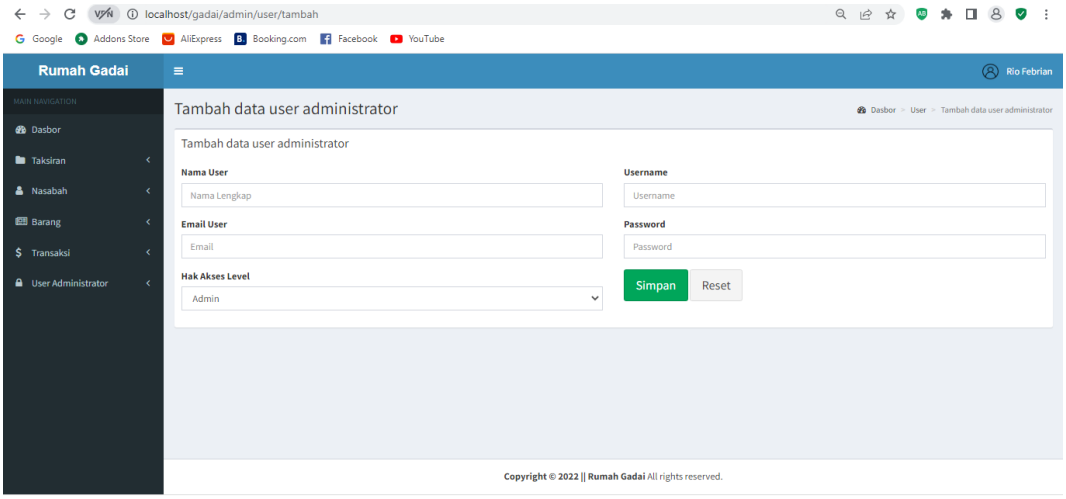

Figure 29. Implementation of Input Display and Change User Data

Output Page

Output design refers to presenting information derived from data processing as a report. The design and implementation of input/output systems serve as a valuable resource for developers in creating and constructing applications. Output design refers to designing reports generated from a system and presented to users, utilizing data retrieved from a database. The Report Page is the resultant output of the system that has been constructed, and it serves the purpose of analysis and documentation.

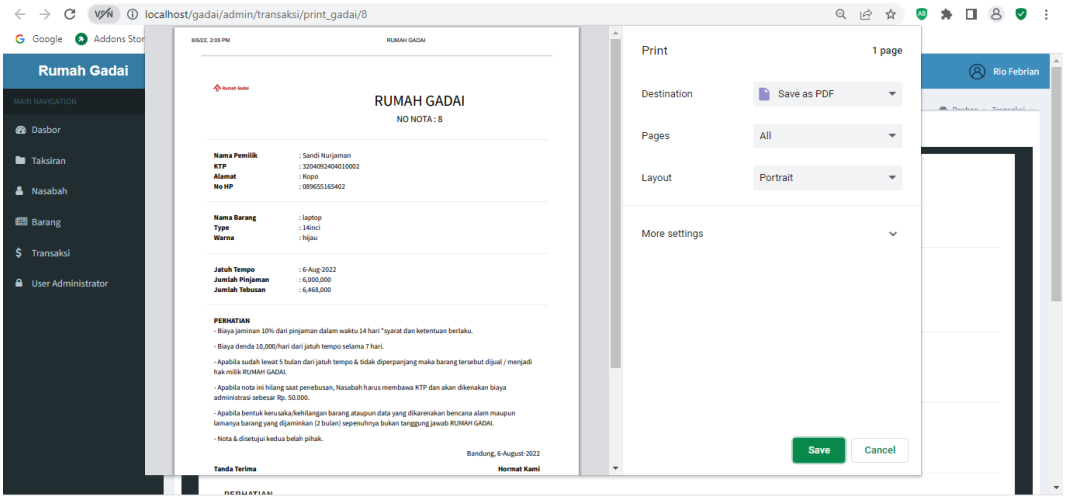

Figure 30. Implementation of the Transaction Data Report Output Display

CONCLUSION

After examining the existing system at the Pawnshop and the subsequent implementation of a novel system utilizing the PHP programming language, which the company had not previously employed for data entry and pricing estimating procedures, new functionality has been incorporated. This functionality facilitates the generation of transactional data, streamlining the process of generating pawn data reports for customers.

This system is anticipated to enhance the operational efficiency of the data entry and pricing estimating application. The results derived from this Final Project are: The program has reduced the likelihood of errors in customer data input. Customers can make an approximate assessment of the worth of their possessions prior to entrusting them to the organization for pawning.

The maintenance of software and hardware is crucial in ensuring the seamless functioning of a system. Regular data backups are necessary to mitigate the risk of data loss and play a critical role in facilitating program improvement and enhancement.

REFERENCES

Badriyaha, S. M., Suhartob, R., Kashadic, K., Mahmudahd, M., & Soemarmie, A. (2020). Private Pawnshop Registration as an Effort to Develop Small and Medium Enterprises in Indonesia. International Journal of Innovation, Creativity and Change, 12(7), 174-185.

Bondarenko, N. M., & Sitenko, V. O. (2020). Improving the Accounting for Credit Transactions in Pawnshops. Облік і фінанси, (2), 5-11.

Harahap, R. A., Soemitra, A., & Muda, I. (2021). Sharia Pawnshop: The Pawnshops Issue Sharia Based Products. Turkish Online Journal of Qualitative Inquiry, 12(9).

Hardiansyah, Y. (2022). The Sharia Pawnshops and Its Role for Community Resilience in the days of Covid-19 Pandemic: Evidence from Indonesia and Malaysia. Tazkia Islamic Finance and Business Review, 16(1).

Iranmanesh, M., Min, C. L., Senali, M. G., Nikbin, D., & Foroughi, B. (2022). Determinants of switching intention from web-based stores to retail apps: Habit as a moderator. Journal of Retailing and Consumer Services, 66, 102957.

Jalaludin, J., Indriani, E., Isnawati, I., & Ermawati, E. (2023). Sustainability Analysis of Pawn Products PT. Pegadaian (Persero) in the Competitive Climate of the Pawnshop Business. Socio-Economic and Humanistic Aspects for Township and Industry, 1(1), 15-25.

Korinko, M. D., & Kostenko, D. V. (2018). Financial loans of pawnshops: evaluation and disclosure in accounting. Financial and credit activity problems of theory and practice, 3(26), 187-195.

McDonald, S., Mohammed, I. N., Bolten, J. D., Pulla, S., Meechaiya, C., Markert, A., ... & Lakshmi, V. (2019). Web-based decision support system tools: The Soil and Water Assessment Tool Online visualization and analyses (SWATOnline) and NASA earth observation data downloading and reformatting tool (NASAaccess). Environmental modelling & software, 120, 104499.

Miller, G., Hanke, S. A., & Di, H. (2018). Pawnshops regulatory environment: A readability analysis. Journal of Accounting, Business and Management (JABM), 25(1), 50-61.

Moon, M. J. (2018). Evolution of co-production in the information age: Crowdsourcing as a model of web-based co-production in Korea. Policy and Society, 37(3), 294-309.

Nicolini, G., & Cude, B. J. (2019). The influence of financial well-being on pawnshop use. Journal of Consumer Affairs, 53(4), 1674-1692.

Qomariah, N., Pangestu, M. K. M., Herlambang, T., & Putu, N. N. (2021). The Role of Promotion and Service Quality in Increasing Consumer Satisfaction and Loyalty in Pawnshops. Journal of Economics, Finance and Management Studies, 4(10), 1948-1960.

Roy, J., Kumar Sharma, H., Kar, S., Kazimieras Zavadskas, E., & Saparauskas, J. (2019). An extended COPRAS model for multi-criteria decision-making problems and its

application in web-based hotel evaluation and selection. Economic research-Ekonomska istraživanja, 32(1), 219-253.

Skully, M. T. (2019). The development of the pawnshop industry in East Asia. In Financial landscapes reconstructed (pp. 357-374). Routledge.

Viskovich, S., & Pakenham, K. I. (2018). Pilot evaluation of a web-based acceptance and commitment therapy program to promote mental health skills in university students. Journal of clinical psychology, 74(12), 2047-2069.