



Design of a Mini Bank Service System for Regional Public Service Agencies (BLUD) in Vocational High Schools

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ABSTRACT

This study is aims to help Vocational high schools, which are partners in this activity, are also focusing on the rapid development of BLUD so that they can become financially independent and develop their educational institutions through their own efforts. With the development of this mini-bank, it is necessary to develop an information system that can assist the partner in keeping track of all the management and transaction flows that take place in this her BLUD. Here, this non-profit activity is taking place specifically for partners to realize the system that supports her BLUD Minibank. This non-profit activity has resulted in optimized efficiency of BLUD Minibank transactions and enhanced partner skills in the use of information technology

INTRODUCTION

The Vocational High Schools Regional Public Service Authority (BLUD) is an institution established by the local government that manages and provides training opportunities for vocational high school students. The role of BLUDs in vocational schools is to provide the necessary facilities for students, such as classrooms, laboratories, libraries and sports facilities (Triwahyuni and Setiyani, 2016). BLUDs are also responsible for managing the human resources and budget of vocational secondary education (Sudiby and Wirahmayani, 2022). Government studies and forecasts assume that vocational high school BLUD can improve the quality of vocational high school education by providing adequate facilities and improving the quality of existing human resources. The board also hopes that Ammatlukio BLUD can become an effective institution in the management of the vocational education budget. The government also hopes that BLUD Vocational High School can become an educational institution that can increase the competitiveness of vocational high school students in working life and increase vocational high school job opportunities after graduation (Fatma et al., 2020).

Section 8 of the National Education System Law No. 20 of 2003 states that "the management of educational resources must be based on the principles of justice, efficiency, transparency and public accountability" (Sudiby and Wirahmayani, 2022). In this respect the director plays a very important role. Vocational high school is not only considered an educational institution. However, vocational schools must also be seen as a company requiring total management, which includes planning, organization, implementation, teaching, supervision, wealth, financing, development, personnel, marketing, etc. In general, BLUDs aim to improve the quality of service, promote general well-being and educate people's lives. The formation of BLUD is considered important for vocational high schools that have been able to develop a learning factory (TeFa) and for vocational high schools that have received incentive assistance from the central government (Novianti, 2019). The results of the BLUD vocational school can later be used for the development and maintenance of vocational secondary schools. Not only that, through BLUDs, universities of applied sciences can more flexibly control the production of TeFa with various higher products. The advantage of schools that have become BLUD is that they can directly use the results of both students and school assignments (Triwahyuni and Setiyani, 2016).

The partners of this activity are vocational high schools, which are also trying to develop themselves through the formation of BLUDs of vocational high schools according to the guidelines of municipalities to develop the potential of vocational high schools through the implementation program TeFa. (Harry et al., 2021). With BLUD status, Surabaya Vocational High School managed several businesses including clothing manufacturing, tourism, hotels, halls, multimedia catering and mini-banks. In practice, the development of this mini bank expanded not only as a savings and money outlet, but also developed into a unit that also serves school payment transactions (Praptiningsih and Yushita, 2017).

The financial transactions managed by mini-banks are student savings and donations from school committees as voluntary donations (Tari et al., 2021). Student savings is voluntary, the size of which corresponds to the wishes of the student client. However, School Committee donations are voluntary donations that are pre-arranged to become an ongoing or cumulative event. The recording and storage of information is still recorded in the books, so it requires a lot of records, which causes the records to accumulate in each period. In addition, the income statement for balance amounts and financial summaries are still in progress with calculators. Some students have multiple savings whose balance is not the same as in the savings book due to accounting errors and inaccurate calculations. If there is an error in the posting, the administrator and manager need time to recalculate so that the balance is the same as in the passbook, so reporting is delayed. Also, when data is needed, searching for the information takes time because the stack of records must be searched one by one. To develop this, we need a system that minimizes errors in financial accounting and facilitates the acquisition of information so that the process of financial transactions takes place.

METHODS

It seeks to solve questions and give solutions to partners throughout the implementation of community service. In summary, the steps of this action are depicted in Figure 1.

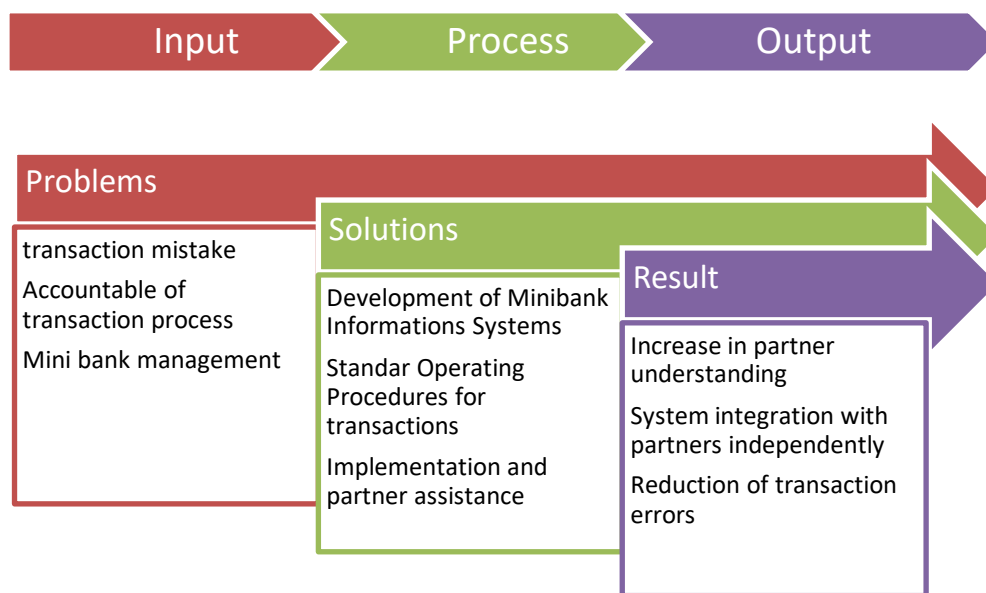


Figure 1. Stages of Implementation Process

The activity identification process is carried out using a focus group discussion format with partners and begins with the stages of activity pre-assessment, activity team formation, and activity initiation. During the initial identification, it turned out that the partner's transactions were still done manually, which often caused problems. Financial flow reporting using payment-based models is often hampered by inconsistent data. It also requires standard financial management to operate successfully. Next steps after initiating and identifying barriers with your partner. It is then reinforced by discussing the scope of activities. This will be referenced in an action proposal agreed upon by the partner and the implementation team. From here, we will implement a system to support the BLUD mini-bank of our affiliated vocational school as the foundation of our activities. At the same time, the implementation team develops the system and compiles her SOP workflow from partners so that actionable steps are formed for each transaction process. This is necessary to minimize errors and create standards for labour services. The system development process refers to the system development life cycle or SDLC process. The SDLC scheme can be easily represented using the schematic in Figure 2 below.

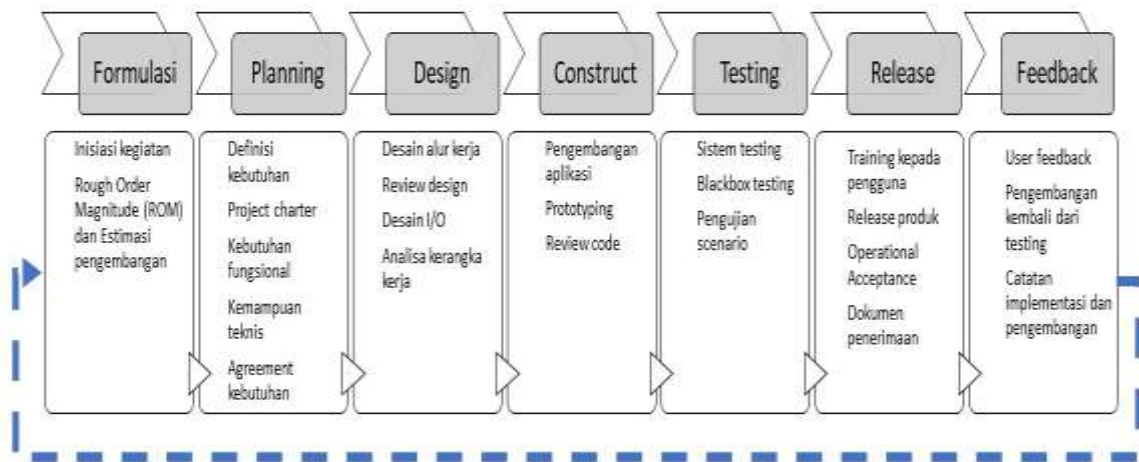


Figure 2. SDLC Schematics for IS Development

The System Development Life Cycle (SDLC) is a process used in the development of information systems. It is a systematic approach to building and delivering high-quality information systems to meet the changing needs of an organization. The SDLC process typically includes the following phases:

1. Planning: In this phase, the project scope and objectives are defined, and a project plan is developed to guide the rest of the SDLC. This phase also involves identifying the resources needed, including personnel and budget.

2. **Analysis:** In this phase, the system requirements are gathered and analyzed. This includes defining the problem to be solved, identifying the stakeholders and their requirements, and determining the feasibility of the project.
3. **Design:** In this phase, the solution is designed to meet the requirements defined in the analysis phase. The design includes the architecture of the system, the user interface design, and the data design.
4. **Development:** In this phase, the system is actually built. This includes writing the code, testing it, and fixing any bugs or issues that are found.
5. **Testing:** In this phase, the system is thoroughly tested to ensure that it meets the requirements defined in the analysis phase and works as expected. This includes both functional testing and non-functional testing, such as performance testing.
6. **Deployment:** In this phase, the system is installed and made operational. This includes training users, configuring the system for the target environment, and making any necessary modifications to the system to meet the needs of the organization.
7. **Maintenance:** In this phase, the system is maintained to ensure that it continues to meet the needs of the organization and to address any problems that may arise. This includes fixing bugs, updating the system to meet changing requirements, and improving the system's performance.

The SDLC process helps ensure that the information system is developed in a systematic and controlled manner, and that the end result meets the needs of the organization.

Therefore, The SDLC will be used as a basis for partners' system development as it can cover the needs of all partners in the phases corresponding to the conditions of this non-commercial activity (Hari et al., 2018). It begins at the formulation stage, and continues through planning, implementing results, and gathering feedback from partners (Faizal et al., 2021). Additionally, the results of the SDLC process are returned as support for future system development, with continuous improvement to achieve shared improvements in partner systems (Firdhaus & Akbar, 2022).

RESULT AND DISCUSSION

As a form of dissemination and transfer of technology to the community, this activity was identified and implemented as a result of this activity over one semester of 2022 with our vocational high school partners. This activity began with coordination and coordination with partners and was supported by students from the Information Systems Research Center in the form of the Independent Learning Campus Merdeka (MBKM). In the early stages of this activity, we were able to put together a transaction flow based on the results of interviews and discussions with our partners. This was ultimately agreed upon as a form of standard operating procedure for reference. The system modeling results can be seen in Figure 4. ERD below.

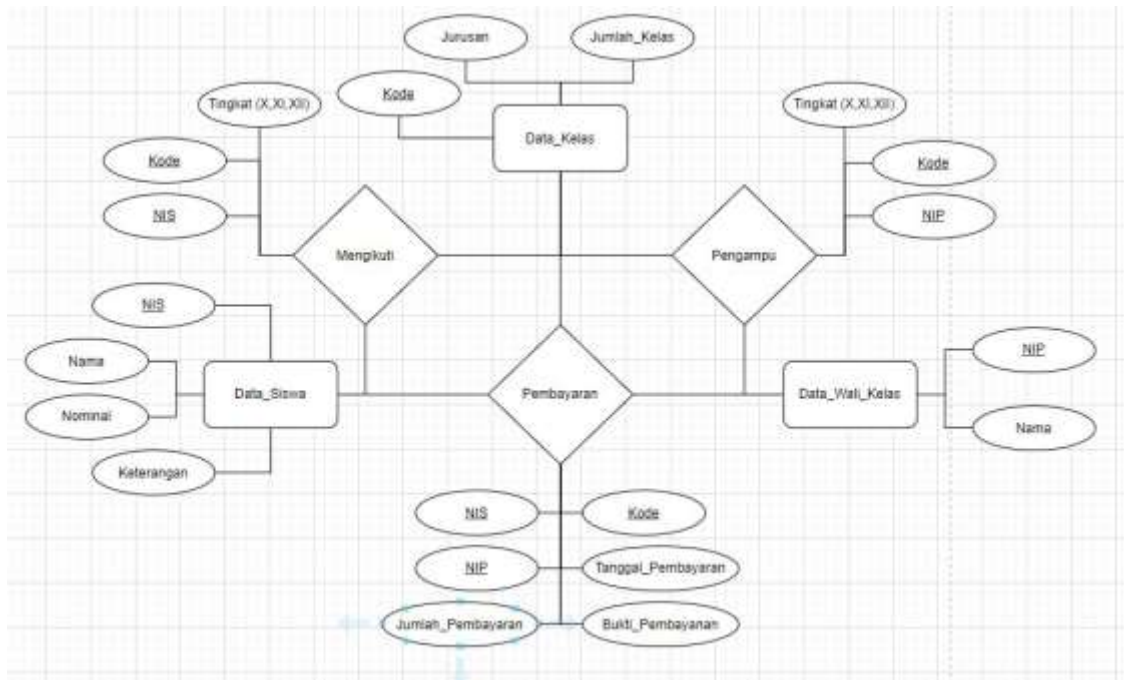


Figure 3. Entity Relational Diagram

After obtaining a joint decision, we will develop the application, disseminate it, and train our partners. This mini-bank will also be used as an apprenticeship or internship for the students of our partner colleges, so that it can continue to function even if the users of this application change very little. In other words, there are no full-time staff. Therefore, strict and clear guidance is required to ensure the proper execution of the application by everyone involved in this mini-bank.

The following interface design of the system that has been developed can be shown on figure 4.



Figure 4. Home Screen for Mini Bank System

On this page there is a collaboration that is able to facilitate the income of voluntary contributions from students as well as to help with financial records. Until the reporting so that it can be well organized. This can be seen successively in Figure 5.

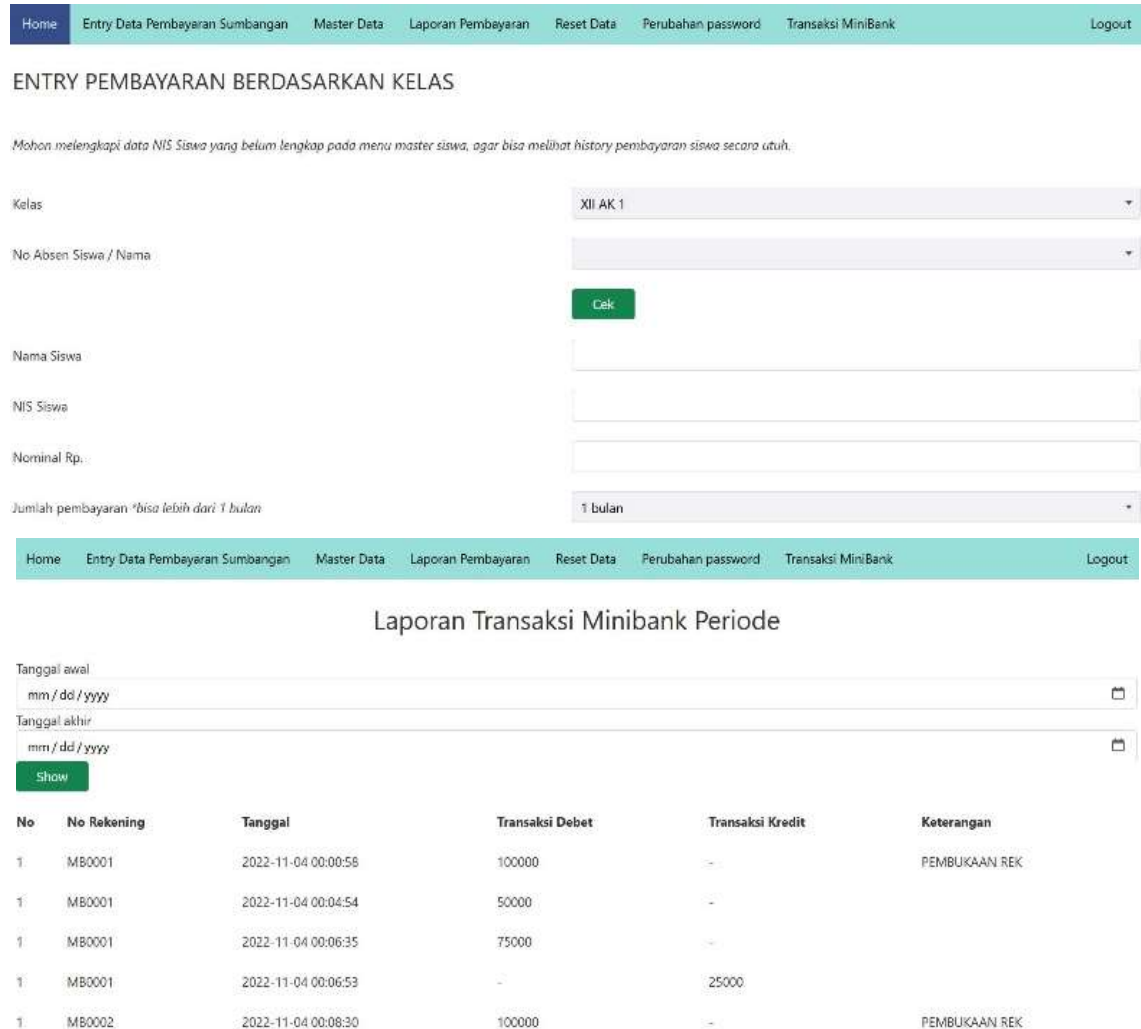


Figure 5. UI for Transaction and Periodic Reports

CONCLUSIONS AND RECOMMENDATIONS

Vocational High School partners can use this project to create an information system to aid in the recording of transactions at mini banks. Furthermore, with the assistance of this system, in addition to offering comfort and speed in accessing data and processing information, it is also capable of providing a standard work base so that any students who work in this mini bank may provide the same services and have good data access.

Recommendation for these activities are the schools need to maintain the standard for service quality using the SOP document that has been created. Furthermore, it's also need to regularly increase the capabilities of student on increasing the digital literature and computer skill to help accelerate the transaction process.

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