

Design of a Web-Based Application for Business Enrollment Number (NIB) Recording at the Prabumulih City Dpmtsp

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Abstract

This proposal aims to design and develop a web-based application for recording and reporting Business Identification Numbers (NIB) at the Investment and One-Stop Integrated Service (DPMPPTSP) of Prabumulih City. Currently, the process of recording NIBs is done manually using a report book and Microsoft Excel, which can lead to errors, inefficiencies, and difficulty in retrieving and reporting data. The web-based application to be developed will replace the manual system with a more efficient, accurate, and easily accessible data management system. Equipped with automated reporting features and a dashboard to monitor NIB status in real-time, this application is expected to accelerate administrative processes, minimize data input errors, and provide ease for business owners to access information about their NIB status in a transparent and timely manner.

Keywords: Design and development, web application, Business Identification Number (NIB), DPMPPTSP, NIB recording, NIB reporting

1. Introduction

Along with the rapid development of information technology, various government sectors are also required to transform and adopt digital systems to improve efficiency and accuracy in carrying out their duties. At the Prabumulih City Investment and One-Stop Integrated Services Agency (DPMPPTSP), specifically in the process of recording and reporting Business Identification Numbers (NIB), they still use manual methods, namely recording data in physical report books and using Excel software to compile monthly reports. Although this method has been in place for some time, it still has various shortcomings, such as data inaccuracy, long time required for data searches, and the risk of human error in the recording and calculation process.

Manual recording processes not only require significant time and effort, but also have the potential to introduce errors that can impact the quality of reports submitted to relevant agencies. Furthermore, the use of Excel as a tool for monthly reporting is also not fully optimized due to a lack of automation in data processing. This can result in less efficient reports and require time-consuming manual verification. As the number of businesses applying for NIBs increases, manual recording systems are becoming increasingly ineffective. Therefore, an application system is needed to streamline the NIB recording and reporting process and reduce the potential for errors. With a digital-based application, data processing will be more structured, accurate, and efficient, making it easier for DPMPPTSP staff to produce faster and more reliable reports. Recognizing this need, this final project aims to design and build an application that can digitize the NIB recording process at the Prabumulih City DPMPPTSP, thereby improving service performance, recording effectiveness, and the quality of the resulting reports. This system is also expected to support government policies on bureaucratic reform and improving public services.

2. Theory Linked to Research

2.1. Understanding Application

An application is a software or computer program that operates on a particular system, created and developed to carry out certain commands[1]. An application is a ready-to-use program that can be used to execute a number of commands from the application user himself[2].

2.2. Meaning of Recording

Recording is the regular collection of data on turnover or gross income as a basis for calculating the amount of income[3]. Recording is an activity that aims to monitor incoming and outgoing pharmaceutical supply transactions[4].

2.3. Definition of Report

A report is a form of information delivery that is supported by complete data in accordance with the facts so that the information provided can be trusted and is easy to understand[5]. A report is a form of scientific writing that describes the results of research and/or studies on a problem by an individual[6].

2.4. Website Definition

A website is a medium that has many interconnected pages (hyperlinks), where the website has the function of providing information in the form of text, images, videos, sound and animation or others[7]. A website is a number of web pages that have topics that are interconnected between one page and another, sometimes accompanied by images, videos, animations or other types of objects[8].

3. Research Methods

3.1. Data Source Type

1. Primary Data

Based on the above understanding, the author can conclude that primary data is collecting data from the first source which is usually necessary by using questionnaires or interviews.

2. Secondary Data

Based on the above understanding, the author can conclude that secondary data is collecting data that is not from the first source but rather obtaining data using literature studies used by researchers.

3.2. Method of Collecting Data

1. Observation, conducting direct observations at the object location where this application will be implemented into the licensing system at the Prabumulih DPMPTSP Office.
2. Interview, conducting a direct question and answer session with related parties at the Prabumulih DPMPTSP Office regarding licensing.
3. Literature study, data collection by using or collecting written sources from reference books and journals.
4. Documentation The documentation method is carried out by taking pictures or photos by researchers to strengthen the research.

4. System Analysis And Design

4.1. Proposed Class Diagram

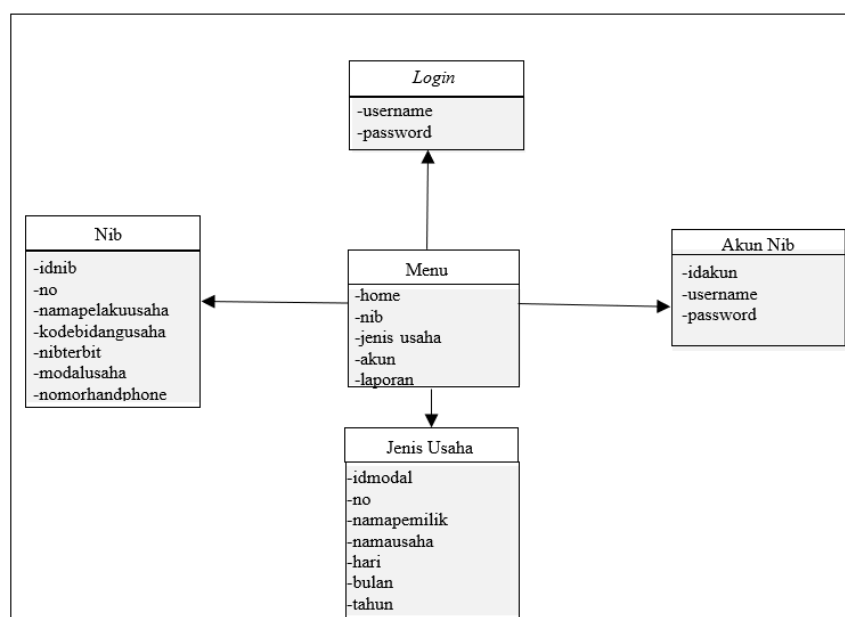


Fig 1 : Class Diagram

Figure 3.14 above describes the attributes in the login form, NIB, Business Type, NIB account, registered menus such as home, Business Type, NIB, assistance list report account and so on.

5. Implementation And Testing

5.1. Interface Implementation

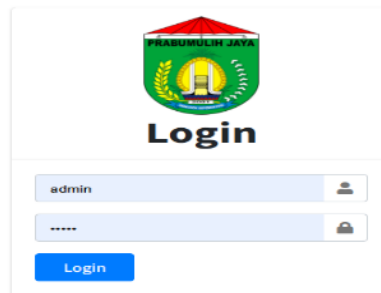


Fig 2 : Admin Login Page View

In the image above is the admin login menu display which will later function for admins who want to enter and use the system, then the admin must log in first by filling in the username and password.

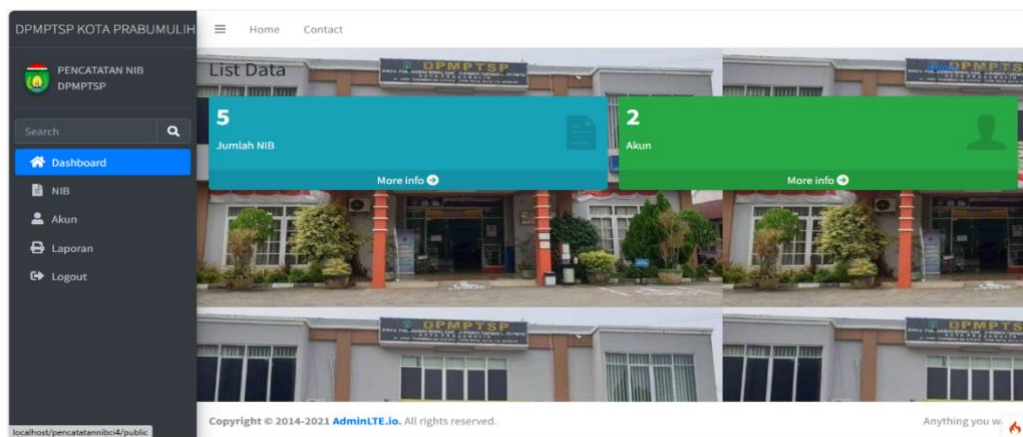


Fig 3 : Admin Home Page View

The image above shows what the system will look like to an admin after successfully logging in. On this page, the admin can input, edit, delete, cancel, and print data.

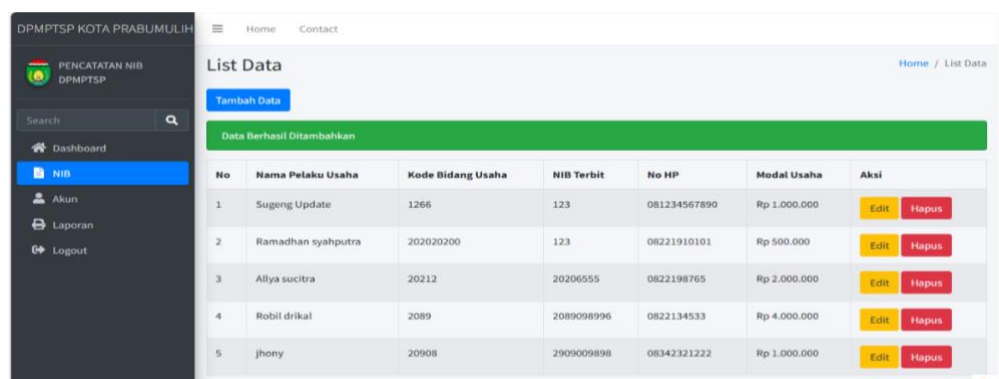


Fig 4 : NIB Page View

The image above shows the NIB data page where the admin can input, edit, and delete data, where the admin can record the NIB recording report.

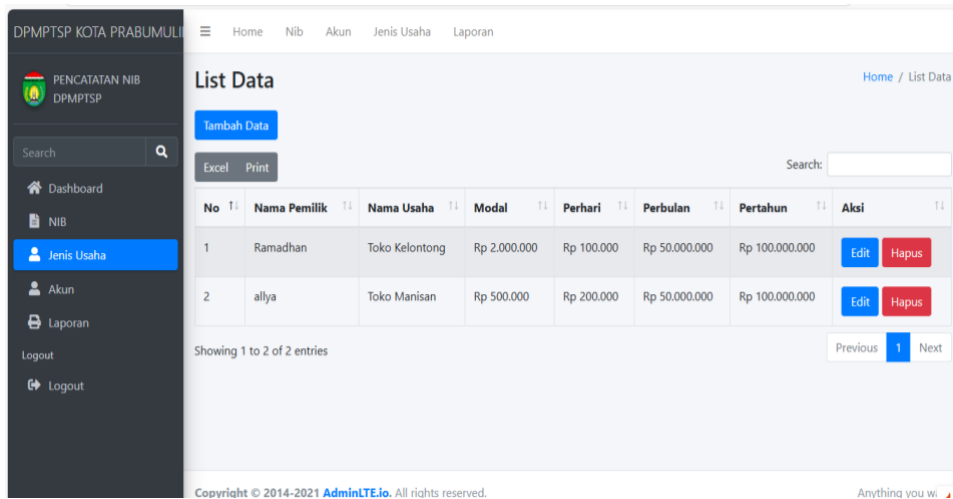


Fig 5 : Business Type Page Views

The image above shows the data type data page where the admin can input, edit, delete, where the admin can record the type of business.

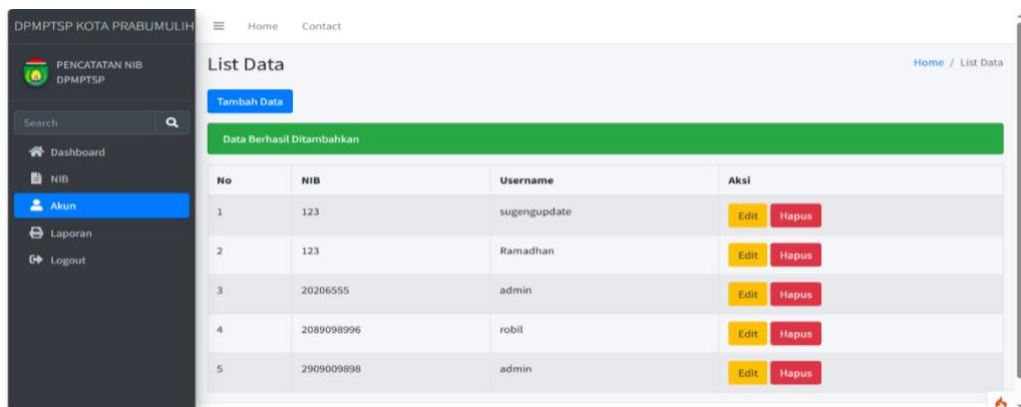


Fig 6 : Account Page View

The image above shows the Account page where the admin can later confirm the account input process.

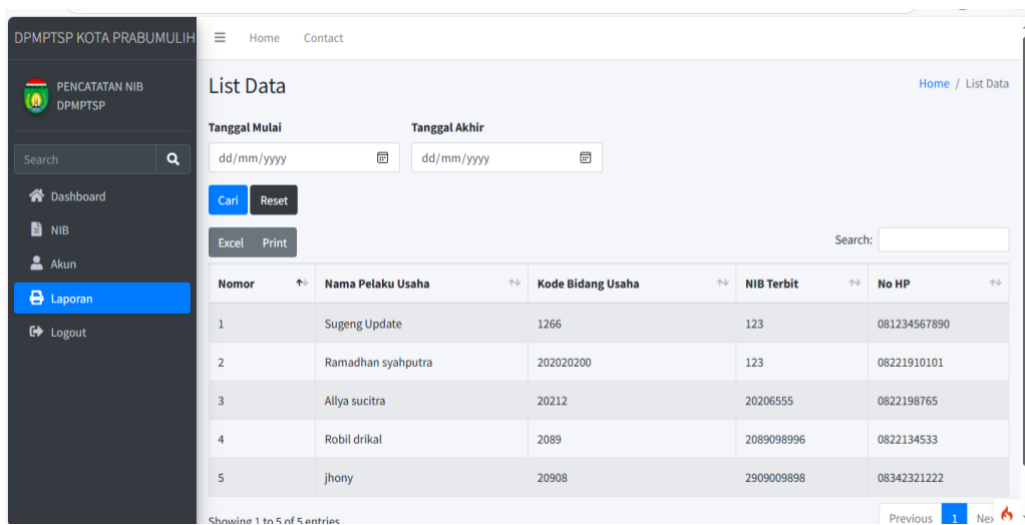


Fig 7 : Report Page View

The image above shows the NIB Monthly Report page where the admin can print the NIB report in Excel or print format.

5.2. System Testing

The system design and construction of the web-based NIB recording reporting application at the Prabumulih City DPMPTSP was tested using the Black Box method. The Black Box method focuses on software testing. The following are the results of the Black Box testing on the web-based NIB recording reporting application at the Prabumulih City DPMPTSP.

Table 1 : System Testing

No	Skenario Pengujian	Hasil Yang Diharapkan	Hasil Yang Didapatkan	Hasil
1.	Masuk halaman login Klik login	Memasukan <i>Username</i> dan <i>Password</i>	Menampilkan halaman utama	Valid
2.	Klik Menu Utama	Menampilkan Halaman Utama	Tampilan utama	Valid
3.	Klik Menu NIB	Mengelola data NIB serta bisa ditambah, diedit dan dihapus	Menampilkan data NIB	Valid
4.	Klik Menu Jenis Usaha	Mengelola data Akun serta bisa ditambah, diedit dan dihapus	Menampilkan data Akun	Valid
5.	Klik Menu Akun	Mengelola data Akun serta bisa ditambah, diedit dan dihapus	Menampilkan data Jenis Usaha	Valid
6.	Klik Menu Laporan	Mengelola data laporan bulanan yang bisa di cetak dalam bentuk excel atau print	Menampilkan data laporan	Valid

6. Conclusion

With the completion of this final project, the author hopes this application will be useful for the DPMPTSP of Prabumulih City, especially for readers in general. Based on this discussion, the following suggestions can be made:

1. This NIB recording report application uses the PHP myadmin programming language with a MySQL database.
2. The proposed system design is expected to make it easier for the Prabumulih City DPMPTSP to report on NIB recording so that it is efficient and accurate and makes it easier for employees to make recording reports without having to be recorded in a report book.
3. In this research, the author developed an application using the waterfall system development method, and used a system design tool using the UML model which consists of several UML diagrams, namely: use case diagrams, activity diagrams and class diagrams.

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