Implementation of the Personnel Management Information System for the Tangerang Regency Regional Civil Service Agency

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Abstract

The research aims to design and build a personnel database application program at the Tangerang Regency Regional Personnel Agency (BKD) using the Visual Basic 6.0 program. The data collection methods used were interviews, literature, and documentation. Once the data required to create the program is sufficient, the program creation process continues with preparing equipment and materials and designing forms and databases. The research results show that the program design consists of data entry processes, data search, and reports. To ensure data security, access rights are differentiated for each user. Apart from that, the application program is equipped with a database backup program that will duplicate the main database file into another directory. To make it easier to distribute reports, the application program is equipped with reports designed with Crystal Report 8.5, so that users just press the printer icon to print the document. The appearance of the program is quite simple but in terms of how to use the program, it needs special attention. Therefore, users need to read how to use the program which can be found in the Help file on the Installation CD. After testing, the designed program can be used to apply to the research object

Keywords: Implementation, Management Information System, Employees

Introduction

Information systems management is an inseparable part of management studies, such as managing personnel, finances, organizations, and so on. It can be assumed that information management is a key factor for the implementation and success of management.

From a physical perspective, an office is a space or part of a building where all office services are carried out. Every office is a form of organization. An office is a kind of cooperative system that involves people carrying out various activities to achieve certain goals. In every office, there is a leader who holds authority over office services. The authority holder coordinates and communicates so that all officers in the office carry out their duties to achieve their specified goals.

The organizational structure of the Tangerang Regency Regional Civil Service Agency (BKD) is contained in Regional Regulation Number 10 of 2023 dated 10 December 2023 which functions to assist the Tangerang Regent in implementing regional personnel management based on statutory regulations in the field of civil service.

One of the administrative functions of the Tangerang Regency Regional Personnel Agency is managing employee data. In its management, there is still a manual (paper-based) processing system, a form of manual processing that still has many shortcomings. A manual processing system (paper-based) is a form of processing that uses a base in the form of a stack of records stored on file shelves. If a file is needed, it is searched on the shelves.
Therefore, by utilizing existing technological developments, it is necessary to look for alternatives to handling this. If we look together, computers are the best solution for managing employee data at the Tangerang Regency Regional Personnel Agency.

### Research methods

The qualitative method is a method that focuses on in-depth observations of design. Therefore, qualitative methods in this research produce a more comprehensive design study of a phenomenon.

### Data collection technique

**Interview method**

One method of collecting data is through interviews, namely: an activity carried out to obtain information directly by asking questions to respondents. In this research, researchers conducted interviews regarding everything related to the circulation of personnel data.

**Documentation method**

The documentation method is a method of searching for data regarding things or variables in the form of notes, transcripts, books, newspapers, magazines, inscriptions, meeting minutes, agendas, and so on.

- a. Documents are a stable source, do not change much, and are rich in information.
- b. Useful as evidence for testing.
- c. Useful and appropriate for qualitative research because of its natural nature.
- d. The results of reviewing the contents of the document will open up opportunities to further expand knowledge.

### Results and Discussion

**System Implementation Application Device Requirements**

The development of this Personnel Management Information System software uses the Visual Basic 6.0 programming language, with the minimum requirements for this application to run well are:

- a. Hardware (Hardware)
  - a) Central Processing Unit (CPU) P III 500 MHz
  - b) SVGA monitors
  - c) 128 MB SDRAM memory
  - d) 13 GB hard disk
  - e) Keyboard, Mouse, Disk Drive, and CD ROM
- b. Software (Software)
  - a) Windows XP Professional SP1 Operating System
  - b) Microsoft Office 2003
  - c) Microsoft Visual Basic 6.0
  - d) Crystal Report 8.5

**Program Installation**

Before users can use the program, they must first install the program on the computer. The installation procedure is:

- a) First, insert the simple program installation CD into the CD Room.
b) Select the setup icon to start the installation process.
c) After that, follow each step carefully.
d) The program is ready to use.

Appearance and How to Use the Program

The program was created by following existing criteria, namely easy to operate (User Friendly) and attractive appearance (User Interface). By the problems discussed in the system design, the information system developed is expected to be able to answer all the problems that have been previously expressed. The following is the appearance and how to use the information system application program created by the author, namely:

1. Splash Screen Form

It will appear for the first time when we run the application program. This form contains brief information about the application being run and will close automatically in a few seconds.

2. Login Form

Users will be faced with this form the first time they run the program. In this form, the user must enter a username and password

Select the OK button to enter the program. If the UserID and password entered are incorrect, a message box appears and the program will ask the program user to refill the UserID and Password textboxes. The Cancel button on this form is used to exit the program.

The login form is very necessary in the program because it differentiates the access rights of each user for data security. In this case, access rights are divided into 5 (five), namely Super Admin, Head Admin, BM Admin, BP Admin, and Operator.

a. Super Admin has greater (absolute) access rights and has the right to enter data, update data, delete data, as well as everything in the application program. This access right is only for the Employee Data and Development Sector, where all personnel data is managed in this section.

b. Head Admin is the access right for the Head of BKD. Its authority is almost the same as Super Admin, only it is not allowed to access user data entry and database backup.

c. BM Admin has access rights for the Employee Mutation Division. The menus that have the right to be accessed are employee rank entry, search data menu, and report menu, while other menus are deliberately deactivated because they are not within their authority.

d. BP Admin has access rights for the Development and Training Sector. Data access is limited to the education and training data entry menu, employee education history entry, data search menu, and reports.

e. Operator is an access right for employees/staff who are not given special authority to access certain data. Operators only have the right to access data searches, reports and change passwords.

3. Main Form

This main form functions as a navigation to explore the contents of the application program. In this form, there are File, Master, Utility, Report and Help menus (with several sub-menus contained therein).
To activate existing menus, users only need to press the left mouse button once or use the keyboard (i.e. by pressing a combination of shortcut keys to activate the desired menu). The exit menu (Ctrl-x) is used to exit the application program.

4. Employee Data Input Form

In this form, several textbox controls must be filled in completely by the user. Apart from that, there are several buttons (command buttons) that function to execute certain commands according to their names (for example: the Save button is used to carry out the process of saving data that the user has input into the biodata database).

Users can see a list of BKD employees at the bottom of the form (in the data grid view).

5. Employee Rank Input Form

Like the employee data input form above, this form is used by users to enter employee rank data. Several textbox controls must be filled in completely by the user. Apart from that, several buttons function to execute certain commands according to their names.

Users can see a list of employee ranks at the bottom of the form (in list view).

6. Employee Training History Input Form

This form is used by users to enter employee training data. Like the employee rank input form above, this form has several textbox controls that must be filled in completely by the user. There are several buttons whose function is to execute certain commands according to their names.
Users can see a collection of employee training lists at the bottom of the form.

![Figure 4. Display of Employee Training History Input Form](image)

7. **Employee Education History Input Form**

This form is used by users to enter employee education data. Several textbox controls must be filled in completely by the user. Apart from that, several buttons function to execute certain commands according to their names. Users can see a collection of employee education data at the bottom of the form.

![Figure 5. Display of Employee Education History Input Form](image)

8. **Employee Family Data Input Form**

This form is used by users to enter employee family data. Several textbox controls must be filled in completely by the user. Apart from that, several buttons function to execute certain commands according to their names.

Users can see employee family data at the bottom of the form. Meanwhile, the Close button is used to close the employee family data input form.
9. Employee Position History Input Form

This form is used by users to enter employee job history data. Several textbox controls must be filled in completely by the user. Apart from that, several buttons function to execute certain commands according to their names. Users can see employee family data at the bottom of the form.

10. Salary Input Form

The salary input form is used to enter employee salary data, several text box controls must be filled in by the user as initial input which is very crucial in salary calculations. The program will automatically carry out several special calculations (for example: wife/husband allowance which is not input from the text box control, the calculations have been written in the program source code). This form is also equipped with a button that functions to execute certain commands according to the name.
11. Database Backup Form
This form is used to backup/copy the database to the desired new location.

12. User Data Input Form
This form functions to enter user data and there are also access rights settings for users, namely whether they are Super Admin, Head Admin, BM Admin, BP Admin, or Operator. Apart from that, several buttons function to execute certain commands according to their names.

13. Change Password Form
Function to change user password. Several text box controls must be filled in by the user. The OK button is used to execute the password change process, while the cancel button exits/cancels the password change process.

![Change Password Form](image1.png)

**Figure 11. Display of the Change Password Form**

14. **Employee Search Form**

This form can be used by all program users, namely to search for BKD employee data. Type search criteria (eg: NIP) in the criteria text box. If employee data is found that matches the search criteria, it will be displayed in the data grid column below. To exit the form, click the exit button.

![Employee Search Form](image2.png)

**Figure 12. Employee Search Form Display**

15. **Employee Rank Search Form**

This form is almost the same as the employee search form, this form is for searching employee rank data. Type search criteria (eg: Group) in the criteria text box. If employee data is found that matches the search criteria, it will be displayed in the data grid column below. To exit the form, click the exit button.

![Employee Rank Search Form](image3.png)

**Figure 13. Display of the Employee Rank Search Form**

16. **Employee Training Search Form**
Can be used by all program users, namely to search for employee training data. Type search criteria (for example: Training Name) in the criteria text box. If employee data is found that matches the search criteria, it will be displayed in the data grid column below. To exit the form, click the exit button.

Figure 14. Display of the Employee Training Search Form

17. Employee Education Search Form

This form is for searching employee education history. Type search criteria (eg: Education Level) in the criteria text box. If employee data is found that matches the search criteria, it will be displayed in the data grid column below. To exit the form, click the exit button.

Figure 15. Display of the Form for Searching Employee Education History

18. Employee Family Search Form

This form is for searching employee family data. Type search criteria (eg: Family Name) in the criteria text box. If employee data is found that matches the search criteria, it will be displayed in the data grid column below. To exit the form, click the exit button.

Figure 16. Display of the Form for Searching Employee Family Data

19. Employee Position Search Form
To search for employee job history. Type search criteria (for example: Name of Position) in the criteria text box. If employee data is found that matches the search criteria, it will be displayed in the data grid column below. To exit the form, click the exit button.

Figure 17. Display of the Employee Position History Search Form

20. Employee Data Print Form

This form is used by users to view BKD employee data reports. Users can print reports by selecting the print button at the bottom of the form. Meanwhile, to exit the form, the user simply selects the exit button.

Figure 18. Display of Employee Data Print Form

21. Employee Training Print Form

This form is used by users to view employee training history reports. Users can print reports by selecting the print button at the bottom of the form. Meanwhile, to exit the form, the user simply selects the exit button.

Figure 19. Display of Employee Training History Print Form

22. Employee Rank Print Form

This form is used by users to view employee rank reports. Users can print reports by selecting the print button at the bottom of the form. Meanwhile, to exit the form, the user simply selects the exit button.
Figure 20. Display of Employee Rank Printed Form

### 23. Employee Education Print Form

This form is used by users to view employee education history reports. Users can print reports by selecting the print button at the bottom of the form. Meanwhile, to exit the form, the user simply selects the exit button.

Figure 21. Display of Employee Education History Print Form

### 24. Employee Family Print Form

This form is used by users to view employee family data reports. Users can print reports by selecting the print button at the bottom of the form. Meanwhile, to exit the form, the user simply selects the exit button.

Figure 22. Display of Employee Family Data Print Form

### 25. Employee Position Print Form

This form is used by users to view employee position history reports. Users can print reports by selecting the print button at the bottom of the form. Meanwhile, to exit the form, the user simply selects the exit button.
26. Salary Print Form

This form is used by users to view employee salary reports. Users can print reports by selecting the print button at the bottom of the form. Meanwhile, to exit the form, the user simply selects the exit button.
Conclusion

After carrying out the process of designing and creating a Personnel Information System, researchers found several things that needed to be concluded, namely:

a. To ensure data security, differentiating access rights for each user is very important. Because some data can only be accessed by certain fields that are authorized to handle it.

b. The program is expected to simplify the process of data entry, editing data, updating data, deleting data, and searching for personnel data at BKD Purbalingga.

c. To ensure the security and integrity of the data, the application program is equipped with a database backup program which will duplicate/copy the main database file into another directory.

d. Making reports (reports) is built with the Crystal Report 8.5 program which will simplify the process of printing reports into documents.

e. How to use the program can be explained as follows: (1). Carry out the program installation process by inserting the CD into the CD-ROM. Select the setup icon, then follow each step carefully (2). To run the program, on the start menu select the program then select Simpeg (3). By using a computerized system, the process of circulating personnel data becomes faster, more thorough, and more accurate.

Suggestion

The system created by researchers is still far from perfect and needs to be developed better. Some things that researchers suggest:

a. In the future, this application is still not complete, it is hoped that BKD itself will be willing to carry out further development. For example, there is no data compaction process yet.

b. To use the application that the researcher created, it is best to use the application device according to the specified specifications. This is to avoid errors occurring or the system not being able to run if using specifications that are lower than the existing ones.

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