



RESEARCH ARTICLE

Web-Based Online Employee Card Creation Information System (Case Study: Regional XIII Aceh State Civil Service Agency (BKN) Office)

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Abstract

The increasingly rapid development of information and communication technology has had an impact on all areas of life, including archival technology. BKN Aceh Regional Office It is felt that the process of activities like this is not optimal, to overcome this, a website-based database application system is needed which can process the data into a single unit to be archived on a website so that information can be obtained quickly and precisely. The aim that the author wants to achieve from this research is to design a website-based database application for the pension archive data collection system at the XIII BKN Aceh regional office and the author can complete the research well, research. Based on the results of the analysis activities of the Web-Based Pension Archive Data Collection System at the Regional Office XIII BKN Aceh, it can be seen that up to now it is still done manually. The author can conclude several things as follows. Using a system that is still manual has limited time in the data search process, because the data has not been sent to BKN Aceh. The designed system has a very different comparison of time and costs from the old system. For the smooth processing of archival data, training is needed for employees who will be involved in operating the system, because the speed of information greatly influences the level of employee work and existing plans.

Keywords

Pension Archives; BKN Regional XIII; Personnel Data.

1 | INTRODUCTION

In the modern era, the development of information technology is growing very rapidly. Computers are currently the main support in carrying out work in trade, offices, education and companies. The need for providing information is increasing, various facilities must be prepared to provide precise, accurate information and in a short time for an ongoing problem or condition. However, the role of information technology is not only limited to providing precise, accurate information in a short time but also plays a role in speeding up and making time and human energy more efficient in carrying out work so that the role of information technology is very necessary in various fields of government and private agencies. Regional State Civil Service Agency Information systems in agencies are needed to know and control the development of the agency. The existence of this information system really helps agencies in organizing their performance in a systematic and procedural manner.

The information system for making employee cards at BKN Aceh generally uses computers to make karpegs. However, so far it is still running slowly and does not have a specific application, which has resulted in many obstacles being faced, including carrying the carpeg proposal file, and requiring a relatively long time to make the carpeg. To overcome this problem, it is very appropriate if the carpet making is computerized by designing an information system. The author limits the problem that will be discussed in this thesis to only Web-based online karpeg creation in the sub-field of mutation and employment status of the XIII Aceh Regional State Civil Service Agency (BKN) Office. Looking at the background of the problem that the author puts forward, the aim of this research is; To design an information application system for making web-based online employee cards, To save employees' time in bringing the karpeg proposal file to the XIII ACEH regional BKN office, To reduce delays in the Implementation of Employee Card Making in the Mutation field, To reduce archives at the XIII ACEH regional BKN office , and As valuable experience and added value that can be used to expand the author's knowledge.

2 | BACKGROUND THEORY

An information system is a system that can be defined as collecting, processing, storing, analyzing, disseminating information, for certain purposes. Like other systems, an information system consists of input (data, instructions) and output (reports, calculations). Therefore, a complete understanding of computer-based organizational information systems must also include understanding concepts related to information, information users, and the value of information. The main concepts of a management information system are; The information concept adds a presentation, namely in relation to the time and quality of information, Humans as information managers, human abilities as information managers determine limitations in an information system and emphasize the basics of their design, and the system concept, because a management information system is a system deemed necessary to be able to understand and design designs for information system development. An employee card (Karpeg) is a civil servant identity card that is valid as long as the person concerned is a civil servant. Employee cards are given to those who already have civil servant status, or in other words, as long as someone still has the status of a civil servant candidate, they are not given an employee card. The employee card is valid as long as the person concerned is a civil servant, or in other words, if the person concerned has stopped being a civil servant, the employee card is automatically no longer valid. Employee cards are one of the requirements for proposing promotions, proposing periodic salary increases, applying for pensions and disbursing returns on civil servant housing savings. Basically employee cards refer to regulations in Indonesia, namely; Government Regulation no. 32 of 1972, Perka BKN no. 7 of 2008, Kepka BAKN No.066/KEP/1974, Joint Decree of the Minister of Home Affairs and the Head of BAKNN No. 217 of 1974 and no. 070/Kep/1979, and Circular Letter of the Head of BAKN Number 01/SE/1975 dated 09 January 1977 Circular Letter of the Head of BKN Number 01/SE/1994 dated 7 January 1994.

The system can be designed using web-based technologies such as HTML, PHP, CSS, and MySQL for efficient data management (Abdurahman, 2018). The system can incorporate detailed employee information, including service history, job positions, and other relevant data, to facilitate processes such as promotions and salary increments (Kharisma *et al.*, 2022). Additionally, the system can be designed to store employee data, manage promotion requirements, and streamline the pension application process, thereby saving time and resources (Given & Rachmadi, 2023). Furthermore, the system can aid in recruitment data generation, job application information dissemination, and employee recruitment process acceleration (Elizabeth & Febriansyah, 2022). Implementing an employee attendance information system can enhance employee data management, improve institutional performance, and simplify attendance processes, data retrieval, and calculation (Amir *et al.*, 2023). Moreover, the system can facilitate the creation of travel order documents, simplifying employee travel planning and data

retrieval (Puspitasari & Devi, 2021).

The system's design can be influenced by the need to support integrated employee data management, data processing, procedures, workflow, human resources, and information technology to produce rapid, comprehensive, and accurate information to support personnel administration (Lestari & Susanti, 2021). Furthermore, the system can be developed using web-based programming languages such as PHP and MySQL to provide employee leave application services (Sudiarjo, 2021). The system's user satisfaction can be enhanced by ensuring effective governance of complex systems during peak periods, involving multiple users and supporting various academic activities (Saputra & Kurniadi, 2019). Additionally, the system can be designed to facilitate the management of civil servant additional income, including monitoring attendance, disciplinary records, performance payment monitoring, and performance assessment (Haryani et al., 2022). The system can also be developed to provide ease of use for HRD, directors, and employees in performing desired processes (Adnyana & Kesuma, 2023). Furthermore, the system can be designed to facilitate payroll management, data storage, input, and monthly report generation (Oktapiani et al., 2021). The system can also be developed to support employee competency development and integrate competency development programs with employee performance management (Sudewo & Sulastri, 2022). The development of the online web-based employee card creation information system for the Regional XIII Aceh office of the National Civil Service Agency (BKN) can benefit from the insights provided by the relevant studies. These studies offer valuable guidance on the use of web-based technologies, data management, employee information storage, and process streamlining to enhance the efficiency and effectiveness of the system.

Several theories regarding the programming language used by the author consist of the Internet, Website, MySQL Database, PHP and HTML. The Internet or Interconnection Network is a computer network that is connected to each other and is located in all corners of the world, because networks throughout the world are connected to each other, everyone can access the Internet and can certainly access information from all over the world that is connected to the Internet. A website is often also called a Web, which can be interpreted as a collection of pages that display various kinds of text information, data, still or moving images, animated data, sound, video or a combination of all of them, both static and dynamic, which forming a series of interrelated buildings where each is connected by a network of pages or hyperlinks. MySQL is a SQL database management system that is Open Source and the most popular today. The MySQL Database System supports several features such as multithreaded, multi-user, and SQL database management system (DBMS). This database was created for the purposes of a database system that is fast, reliable and easy to use. PHP is interpreter programming, namely the process of translating lines of source code into machine code that the computer understands directly when the line of code is executed. Php is also called Server-Side Programming, this is because the entire process is carried out on the server. PHP is a language with open copyright or also known as open source, that is, data users develop functional codes according to their needs. HTML stands for Hyper Text Markup Language. HTML documents can be created with any text editor. This document is known as a web page. HTML documents are documents presented in a web server browser. This document generally contains information or application interfaces on the internet. HTML is a standard programming language used to create a web page, which can then be accessed to display various information in an Internet web browser (browser).

3 | METHOD

To obtain data and materials to complete this thesis, the author used the System Development Life Cycle (SDLC) method. This method is an approach through several stages to analyze and design a system where the system has been very well developed through the use of specific analyzer and user activity cycles. The stages in the system development cycle are; System Planning, System Analysis, System Design in General, System Design in detail, and System Implementation & Maintenance.

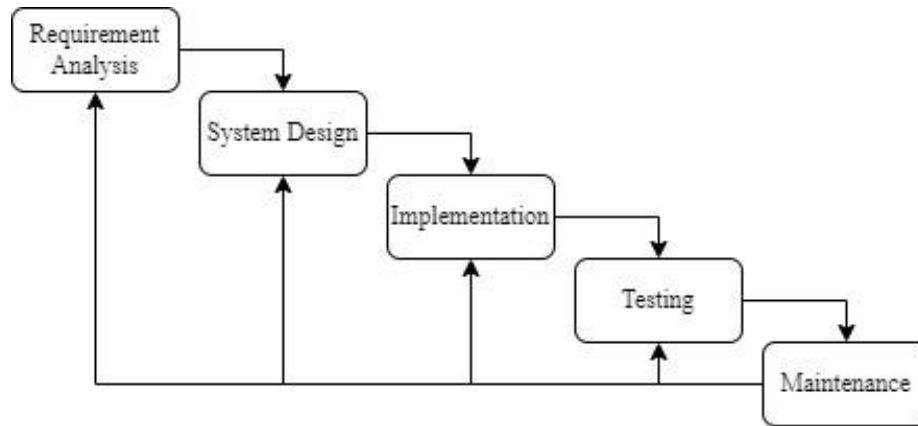


Figure 1. System Development Life Cycle (SDLC) Method

At the Regional XIII Aceh State Civil Service Agency (BKN) Office, currently the manufacture of carpets is using a computerized system but it is not yet optimal. So there are many obstacles faced in data collection, including; The system used is still manual, especially in the process of inputting employee cards. It is often late in obtaining data because the process of obtaining it still uses postal media to send data, and errors often occur in recording data and duplicating data. The data processing system that occurs at the Aceh Provincial Health Service Office currently uses input such as; Cover Letter Data from BKPP/Kanwil, Legalized CPNS Sk Data, Legalized Civil Servant SK Data, and STTPL Letter Data. In a data processing process, reports are very necessary as information. For this reason, a reporting system is needed. The output analysis of the online carpet making information system at the Regional XIII Aceh State Civil Service Agency (BKN) Office is; Mutation Sector Report Recapitulation of Completion of Technical Considerations for Vertical Agency Karpeg Proposals, and Monthly Mutation Sector Report Recapitulation of Completion of Technical Considerations for Regency/City Agency Karpeg Proposals.

To make it clearer about the information system for making online carpegs at the Aceh Regional XIII State Civil Service Agency (BKN) Office, the current system is also depicted in the Current System Context Diagram, Current System Tier Diagram, Current Level 0 Data Flow Diagram. , level 1 process number 2 diagram, and Level 1 Process Number Data Flow Diagram. 3 Ongoing. To control data on a running system, save files in a special folder, apart from that, files are also stored safely in each filing cabinet. To expedite the tasks and activities carried out at the Regional XIII Aceh State Civil Service Agency (BKN) Office, so that they run as well as possible, employees are needed who really understand their field. The number of employees at the State Civil Service Agency (BKN) Regional XIII Aceh office is six people, consisting of two people collecting data from each district, two people recording incoming data, and two other employees who make recap reports every year.

4 | RESULT

The Web-Based Information System for Making Online Employee Cards at the Regional XIII Aceh State Civil Service Agency (BKN) Office that the author designed consists of several stages, namely input design, output design, process design, control design, workforce design, and cost design. The author hopes that this design will make things easier for every user, especially the personnel section of the XIII Aceh Regional State Civil Service Agency (BKN) Office. This input design consists of several program files, namely; User Data Entry Program, Echelon Master Data Entry Program, Position Master Data Entry Program, Group Master Data Entry Program, Employee Data Entry Program, Family History Data Entry Program, School History Data Entry Program, Employee Position Data Entry Program, Rank Data Entry Program, Cover Letter Data Entry Program, and Work Area Data Entry Program. The design output of the system for the process of making employee cards at the Regional XIII Aceh State Civil Service Agency (BKN) Office consists of several program outputs, namely: Group Recap, Position Recap, Education Recap, Regional Recap, Employee Nominative Report, Employee DUK Report, Employee Bezetting Report, Print Karis, Print Karsu, and Print KPE.

The data processing process for making employee cards at the Regional XIII Aceh State Civil Service Agency (BKN) Office is basically very different from the old system, what differentiates it is the media and equipment used. In inputting data for making employee cards and other data, a new design system uses a computerized application. Controlling user registration begins by collecting data into tables in the database. This process is carried out to

prevent duplication or redundancy of data that will be input into the database. Apart from that, this process also ensures that the data entered is correct data. The things that need to be done in the control process are; Only registered admins can enter this system. To ensure that password user data cannot be easily or encrypted by hackers, the encryption system does not only apply to passwords, but also to user names. To help in the personnel sector, employee data can be viewed at access rights at the operator and management levels. with the aim of making it easier to view personnel data, however this access only allows reports, and a password is required so that not everyone can open or change existing data. In carrying out the web-based design of the information system for making employee cards at the Regional XIII Aceh State Civil Service Agency (BKN) Office, workers are required who can operate computers so that it is easy to process employee data. The existing workforce is currently sufficient to run this application, only 1 person is needed to run this application, and it is necessary to provide training and skills regarding the use of this application.

In order to carry out a job perfectly well, it cannot be separated from the cost factor. The details of the proposed costs required in handling the data collection process for making employee cards at the Aceh Regional XIII Aceh State Civil Service Agency (BKN) Office are web-based with detailed proposed costs of 57,548,000. Use of Information System Design for Making employee cards at the Regional XIII Aceh State Civil Service Agency (BKN) Office Web-based, seen from the design of the application in the form of an application display. The login form is used as system security against misuse of access rights, so that data security can be guaranteed. Here the user is asked to enter a username and password to be able to access further data. To make the login process clearer, see the image below.

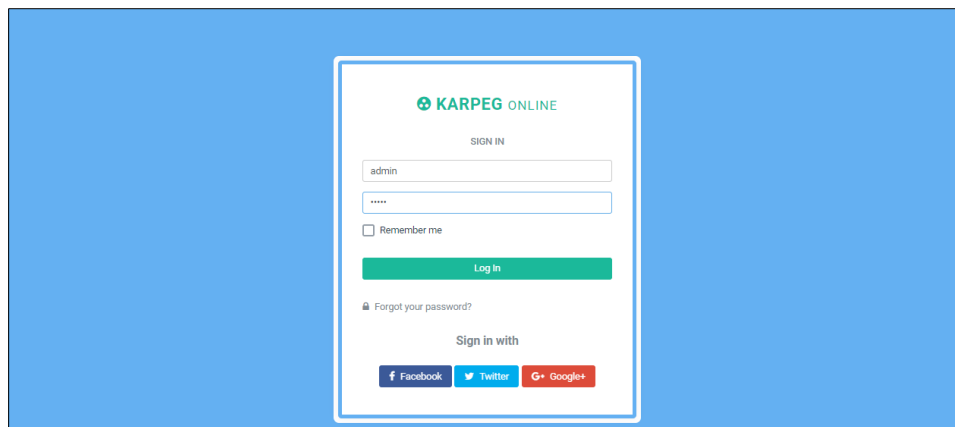


Figure 2. Login Form Display

In the form below is the main menu form consisting of menus for employee data, family history, educational history, personnel, recapitulation, reports, settings, and users. The personnel sub menu consists of position and rank. The recapitulation sub menu consists of group, position, education and region. The report sub menu consists of nominative, bezetting, duk, print Karis, Karsu, and KPE reports. Computer users just have to click on the desired menu icon to see what is in the file.

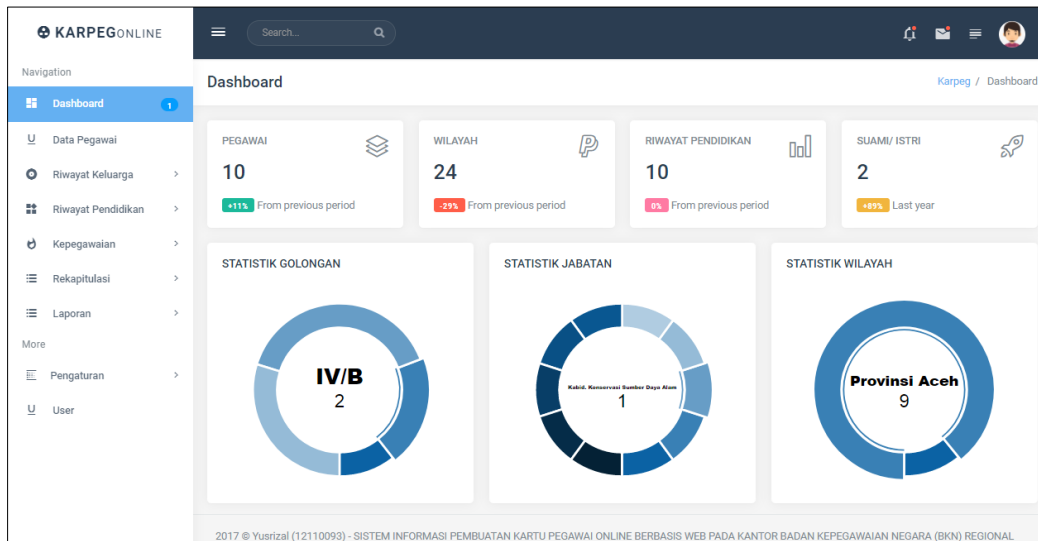
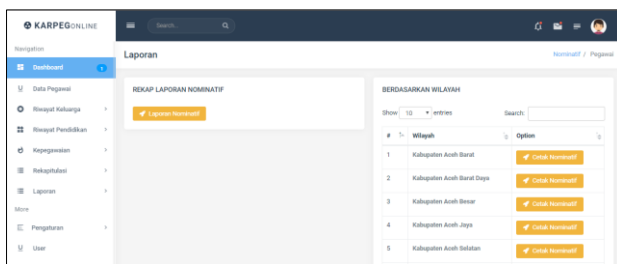


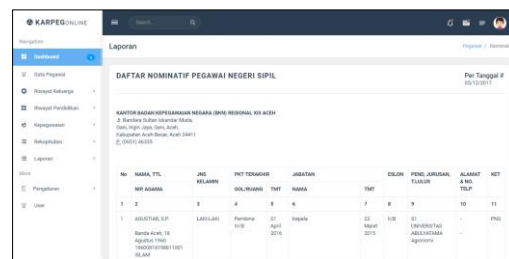
Figure 3. Main Menu Display

The user input menu is a page where the user can input user data which contains a photo, full name, username, password and level. The echelon input menu is a page where users can input echelon data. Where it contains echelons. The job master menu is a page where the user can see a number of position data to be used later when filling in employee data. Class input is a form for recording class data and is master data for filling in employee data later. Each employee has different class data and the class form is used as class master data. The employee input menu is employee master data and is the master data in this application. Employee input consists of nip, employee name, place of birth, religion, gender, blood type, marital status, employment status, promotion date, salary increase date, telephone, and email. The husband/wife family history input menu is an information page from the husband/wife's family data. This is intended to collect data on employees' families. The school education history menu is a page for adding employee education history data. Data on employee school education history can be entered starting from elementary school (SD) level up to university level. The employee position data input menu is a page for filling in employee position data which consists of; position, echelon, TMT position, and TMT end date of position. The employee rank data input menu is a page for filling in employee rank data which consists of; rank, class, type of rank, rank certifying official, SK number, TMT of rank, and date of rank SK.

The cover letter data input menu is a page for filling in cover letter data for the process of printing employee cards, wife cards and employee husband cards. After the cover letter data has been filled in, the next step will be to fill in the employee data in the cover letter to be processed in making the card later. The group recapitulation form is a page that provides the number of employees in graphical form and is displayed based on the groups recorded in the system. The job recapitulation form is a page that provides the number of employees in graphical form and is displayed based on the positions recorded in the system. The education recapitulation form is a page that provides the amount of education in graphic form and is displayed based on the education recorded in the system. The education recapitulation form is a page that provides the number of employees based on work area in graphical form and is displayed based on the area recorded in the system. The Nominative List Report is a list of Civil Servants arranged sequentially based on their respective groupings according to the Organizational Structure of the Agency (CMIW). The report can be seen in the image below.



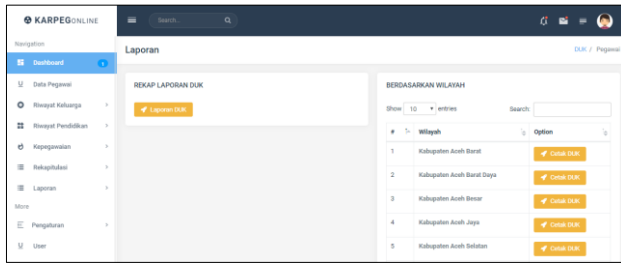
(a) Nominative List Report



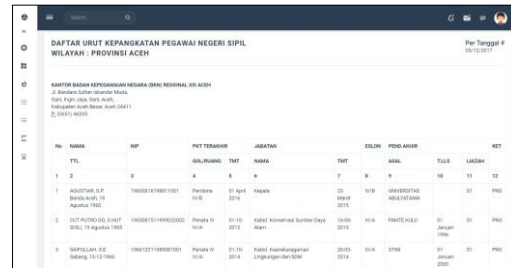
(b) Overall Nominative List Report

Figure 4. Nominative report

Nominative reports can be printed based on region and a summary of all employees (figure 4). The DUK List Report is a sequential list of ranks of Civil Servants. DUK reports can be printed based on region and a summary of all employees, as shown in figure 5.a and figure 5.b.



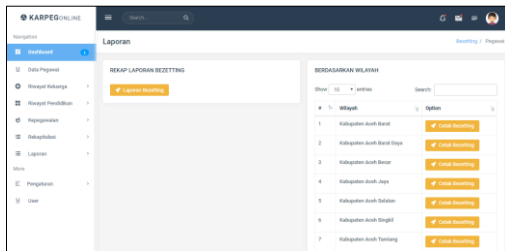
(a) DUK List Report



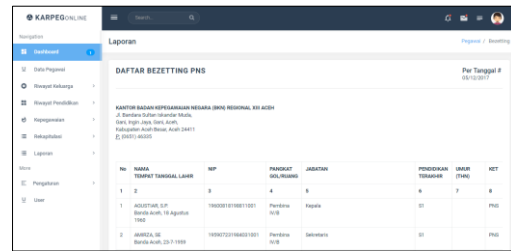
(b) Overall DUK List Report

Figure 5. DUK List Report

The Bezetting List report is a report based on guidelines for calculating employee needs based on workload in the context of preparing the formation of Civil Servants. Bezetting means the current supply of employees/number of civil servants. Bezetting reports can be printed based on region and a summary of all employees, as shown in the image below.



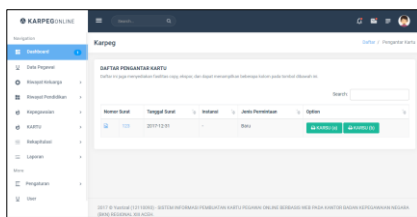
(a) DUK Bezetting Report



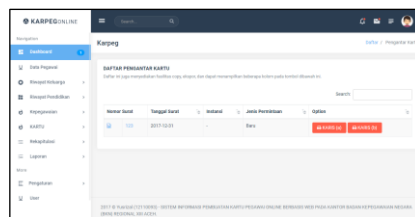
(b) Overall Bezetting Report

Figure 6. Bezetting Report

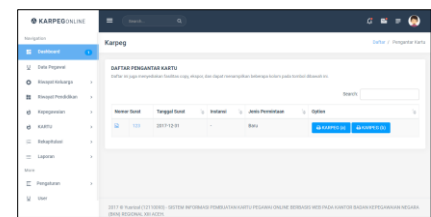
The employee detail form is general employee data information. This form can also print KARSU, KARIS, and KPE data which can be seen in the image below.



(a) KARSU



(b) KARIS



(c) KPE

Figure 7. KARSU, KARIS, and KPE

5 | CONCLUSIONS AND FUTURE WORK

From the results of research and observations carried out at the Regional XIII Aceh State Civil Service Agency (BKN) Office, conclusions can be drawn, namely; With the existence of this Web-Based Online Employee Card Making Information System at the Regional XIII Aceh State Civil Service Agency (BKN) Office, information and work on making employee cards becomes precise and accurate, especially in the personnel section, and obtaining information about these employees becomes easier, the system This information is able to overcome problems that often occur at the Aceh Regional XIII State Civil Service Agency (BKN) Office, namely difficulties in controlling and supervising employee data and making employee cards which can avoid delays and in making personnel reports every year and for certain periods, and the creation of a system program information in order to obtain quality information. The suggestions that the author wants to convey after making observations are; To be able to produce accurate data with minimal error rates, computer use must be further optimized, one of which is by not only focusing on Microsoft Office, but using all existing software will be able to optimize data processing results, and to optimize computer use, additional brainware as a person who will communicate with a computer to produce

optimal results.

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