

LABORATORY APPLICATION DESIGN

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ABSTRACT

Employee payroll applications are designed with the aim of minimizing errors caused by human error, closing time in data collection and management of employee salaries, research methods used namely by library study techniques, retrieving information from the internet, and also by conducting field studies to related institutions. obtained from the design of employee employee applications to produce results that are quite effective compared to the employee payroll system manually, applications are made using Microsoft Visual Basic as a software to create a database.

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I. INTRODUCTION

Web technology is currently experiencing very rapid progress, including many very interesting displays using various programming languages. Rapid development began with the creation of the HTTP protocol (Hypertext Transfer Protocol), this only displays text documents, where in the document there is a connection to other documents, either located on the same server or on a distant server. All of this was initially text-based, then graphics-based browsers were discovered.

By creating a graphics-based browser, HTTP (Hypertext Transfer Protocol) capabilities will be added, namely adding images to documents, then sound and video can be sent, heard and seen directly, all of this is on top of the HTTP (Hypertext Transfer Protocol) protocol. The development of web technology above was also followed by the development of web databases, which made this technology increasingly ready to provide alternative solutions to problems faced by humans. The web is the delivery of distributed documents that run on the internet. The internet is not something new in Indonesia. With web addresses spread across the internet, everyone can get the actual data and information they need at low cost and can save time.

Environmental Laboratory PT. Jababeka is part of PT Jababeka Infrastructure which is the parent organization. Since the laboratory was established in 1991, this laboratory has functioned to carry out quality control and quality assurance (Quality Control and Quality Assurance) processing clean water and waste water as well as monitoring environmental quality in and around the Jababeka Industrial Area. On August 26 2005 the National Accreditation Committee (KAN) granted "Accreditation" to the Laboratory as a reference Laboratory for testing with accreditation number LD-289-IND. So that the certificate or test result report issued by the Laboratory is recognized throughout Asia Pacific. With the accreditation of this laboratory, its function, apart from quality control and quality assurance (Quality Control and Quality Assurance), is processing clean water and waste water as well as monitoring environmental quality in and around the Jababeka industrial area, it also provides testing services to a wider range of customers. However, due to the lack of promotion and information about the existence of the PT. Jababeka Environmental Laboratory infrastructure, many consumers do not know about it. Currently, promotion and information on laboratory services is carried out by :

1. Using banners
2. Using print media
3. Using brochures
4. Take part in environmental and laboratory exhibitions.

Judging from the promotional media and information that has been carried out, it is not very practical and has not reached many groups and regions, so the existence of the PT environmental laboratory. Jababeka Infrastructure is not yet well known and known, even though the promotional and information costs incurred are very large, the number of consumers is still not as expected by the company. In fact, if you look at the location or office of the PT. Jababeka Infrastruktur environmental laboratory, it is in a very strategic position,

namely that in this industrial area there are approximately 1,350 national and international companies such as PT. Unilever Indonesia, PT. Samsung Electronic Indonesia, PT. Mattel Indonesia, PT. Nissin Food, PT. ICCI Paint, PT. United Tractor and others. Apart from that, this laboratory is also close to the Lippo Cikarang industrial area, the Ejiiep industrial area, the Hyundai industrial area, the MM 2100 industrial area and industrial areas in the Karawang and Cikampek areas.

Based on the description above, we want to develop a promotion and information system about the PT Environmental Laboratory. Jababeka infrastructure using information technology so that information and matters related to the existence of the Laboratory can be quickly and easily known by a wider range of consumers so that the number of customers or consumers of the Laboratory can increase and the company's income target can be achieved and even increase, the information technology that will be proposed in companies, namely information technology which is very popular today, namely the internet.

II. LITERATURE REVIEW

Information Systems

An information systems (IS) is a formal, sociotechnical, organizational system designed to collect, process, store, and distribute information. From a sociotechnical perspective, information systems are composed by four components: task, people, structure (or roles), and technology. (Silver et al, 1995) provided two views on (IS) and IS-centered view that include software, hardware, data, people, and procedures. A second managerial view includes people, business processes and Information Systems.

Information systems can be viewed as having five major components: hardware, software, data, people, and processes. The first three are *technology*. These are probably what you thought of when defining information systems. The last two components, people and processes, separate the idea of information systems from more technical fields, such as computer science. In order to fully understand information systems, you will need to understand how all of these components work together to bring value to an organization.

Management of payroll Visual Basic 6.0

A payroll system is a collection of methods, procedures or techniques required in preparation of wages for employees in an organization. According to Richard W. Briglatman (1988), Using Computers in the Information Age, payroll systems perform a number of tasks, maintain payroll information and history, it generates payroll checks and checklists. Account for all volunteers and forced deductions from employee salaries and resulting

report submitted. Payroll systems are designed to handle and provide all the required information relating to employee payroll processing. This should cover everything the paperwork required to pay each employee and record personal taxes and deductions, maintaining files on all individual past earnings, providing up-to-date information total number of output points detailing payroll information and compliant with all taxes regulation. In addition, this system must include those checks and controls prohibit fraudulent use of salary funds.

III. METHODS

Data Collection Technique

In conducting data collection research, both direct and indirect investigations are carried out. To obtain accurate data, a review was carried out using two methods, namely :

1. *Library research*

This research was carried out by reading and collecting data from written sources, namely in the form of books or guides related to the review. This theoretical data is included in this research, which is used as material for consideration between theory and daily implementation.

2. *Field Research*

This research was carried out directly by reviewing the target company with the aim of getting an overview of the company's condition.

- a. Conduct interviews or direct interviews with authorized parties, in this way directly asking questions to the Laboratory leadership, staff and parties who are related to the problem in detail in order to obtain data to support the research to be carried out.
- b. Carry out observations or research from existing data at the company in the form of documents and notes used by the company related to writing this research.

The research was carried out at the Amdal Laboratory of PT. Jababeka Infrastruktur, WTP Building JL. Irigasi Raya No. 1 Cikarang Baru-Kota Jababeka, Bekasi, West Java.

IV. RESULTS

RESEARCH FINDINGS/DISCUSSION

For a company or organization to run effectively, smoothly and as expected so that the company's goals can be achieved, a position must be held by someone who has expertise in that field. After seeing and observing the order/PO (*Purchase Order*) reception system in

the environmental laboratory of PT. Jababeka Infrastruktur where POs (*Purchase Orders*) are received by marketing staff, in connection with the large amount of work that must be done by marketing, it is proposed or recommended that someone help with marketing tasks. for receiving and following up on POs so that the marketing staff's duties can focus more on expanding marketing, carry out promotions, carry out and carry out communications with consumers, follow up on consumer complaints if any and reach new consumers.

The officers or employees who will help with marketing are called administrators who function and are tasked with receiving, monitoring POs (*Purchase Orders*) sent by consumers via the website, then printing and following up, namely by sending price offers, besides that, they are also tasked with sending updated information via the website.

a. System Design Framework

The aim of system design in general is to provide a general overview to users about the new system. General system design is a preparation for detailed design. General design identifies the components of the information system that will be designed in detail. Detailed design is intended for computer programming and other technical experts who will implement the system. The system design stage is generally carried out after the system analysis stage has been completed and the analysis results have been approved by management.

Planning will be neatly arranged if system planning is structured in a structured manner using parallel and cyclical concepts, for example program testing and programming can be carried out in parallel work and if something goes wrong during implementation then surveys, analysis and redesign are carried out which replace the classical design methods used. tends to be serial.

System design has and main objective, namely to meet the needs of users and for provide a clear picture and complete design to the programmers and other technical experts involved.

b. Proposed System Procedures

System procedures and methods for sending PO (Purchase Order) Laboratory Testing Services from consumers have been via e-mail and fax so they are less effective and efficient. To solve this problem, the system and method for sending POs by consumers will be replaced with a new, better system. The workflow and PO delivery system that will be designed is to replace the PO delivery media which has currently been via e-mail and fax, which will be replaced by a website. The application of this website, apart from being a medium for sending POs, also functions as a medium for promotion and information about

the PT. Jababeka Infrastruktur Environmental Laboratory as well as an effective communication medium with consumers.

V. CONCLUSION AND SUGGESTION

A. Conclusion

Research carried out at the Environmental Laboratory of PT. Jababeka Infrastructure, especially in the Marketing and Promotion section, can draw the following conclusions:

1. By using and applying web technology as a promotional and information medium in the Environmental Laboratory of PT. Jababeka Infrastructure means that the existence of the laboratory can be quickly and easily known to a wider range of consumers without being limited by time and distance.
2. By implementing an online or web system as a promotional medium and laboratory information, you can reduce the promotional costs incurred by the company so far.
3. Application of the web in PT's environmental laboratory. Jababeka Infrastructure can make it easier to convey the latest information about laboratories, facilitate communication with consumers and make it easier for consumers to send POs to the laboratory marketing department. Hopefully, with this new system, the laboratory can develop its business more quickly so that the income targets set by management can be achieved, even if they exceed expectations.

B. Suggestion

By building a website at the PT Environmental Laboratory. Jababeka Infrastructure does not mean that the company's problems are considered resolved, so that this website development can function as it should, it is recommended to the company as follows:

1. In order for the goal of creating this website to be achieved, the application of this web-based information must be supported and supported by all parties, from top management to all company employees.
2. So that visitors are interested in always visiting the PT. Jababeka Infrastruktur Environmental Laboratory website or site, they must create more interesting and varied website views.
3. In creating and disseminating news about laboratory information, don't let the news not be in accordance with the actual situation or not actual, the existing information should be updated either every day, week or month, so that the

news and information The latest information can be reached quickly and reach visitors.

These are the conclusions and suggestions conveyed and it is hoped that this new system can help solve the problems faced by the company, especially in the Marketing and Promotion section so that the company can progress and develop further.

VI. BIBLIOGRAPHY

- Abdul Khadir & Terra Ch Triwahyuni 2004. Introduction to Information Technology. Jogjakarta: Andi Offset.
- Bergsten, Han. 2002. JavaServer Pages. Sebastopol: O'Reilly Media, Inc, 2004.
- Binanto, Iwan. 2005. Basic Program Concepts. Jakarta: PT. Elex Media Komputindo.
- Djalie, Zaharuddin. G. 2006. The Making Of 3D Studio Max. Bandung: Informatics.
- Haris Saputro. 2003. Database Management using MySQL-Front. Jakarta: PT. Elek Media Komputindo.
- Hartono, Jogiyanto 2000. Introduction to computers: Basics of Computer Science, Programming, Information Systems, and Artificial Intelligence. Edition 3. Second Cet. Yogyakarta: Andi
- Hartono, Jogiyanto. 2001. Information Systems Analysis & Design: a structured approach to theory and practice of business applications. Yogyakarta: Andi.
- M. Saladin Rosa A.S. 2008. Java on the web. Bandung: Informatics.
- Rickyanto, Isak. 2002. Learn Java Server Yourself. Jakarta: Pages, Gramedia.
- Sita, Casehita. 2005. Databases. Bandung: Informatics
- Setyabudi, Agus, Albert Samuel, 2002. E-Commerce Applications with Java Servlet and JSP. Jakarta: Elex Media Komputindo.
- Tata Sutabri. 2006. Information Systems Analysis. Jogjakarta: Andi Offset. Computer Rides. 2006. Installing Computer Network Devices. Jakarta: PT. Elek Media Komputindo.