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Engineering Using PHP Prototype Method, Mysqlonline Student Value Processing

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Abstract *Engineering managing student values in the world of education is an important factor, because with the assessment it will be clearly seen the level of success of an education provider at the University and Academy in educating its students. Value processing will provide a clear picture of achievement in students. Engineering in value processing, especially on the campus of the Cicurug branch of the CBI branch, has used a system called the college management system, but in this system there are still some drawbacks such as not using the programmed method, so that it cannot be accessed quickly, this often results in late data input. and making the value report, even the files or documents are not neatly arranged. In addition, the value can only be known when students come to the Academic and Student Affairs Administration Section. This often results in queues and students becoming less satisfied in their services. To overcome this data processing, an application is needed using PHP and MySQL databases, which applications can make it easier for Academic and Student Administration Section staff to complete their tasks, especially in processing value data. This application is expected to be able to update the manual system into a computerized system, so that the processing of value data will be faster, more accurate and the resulting information is of higher quality. Administration and Academy section in accessing the value of each student.*

Keywords: *Engineering, PHP MySQL Prototype, Student Value*

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I. Introduction

Background

The information age is currently developing, allowing it to be followed carefully so as not to be retarded. Being backward is not because of a setback, but because walking is not fast enough to be able to follow the progress of the times both in the field of science and technology, so that its development is very rapid, especially in the world of computer information.

Entering the coming era of globalization, the use of computer technology in all fields of everyday life cannot be avoided, even the use of computer technology will be the main requirement to show the quality of a field and become the most important capital in winning the competition. The ability of communication between one field and another in different places is one of the characteristics of the upcoming era of globalization, while the main pillar of communication technology in question is computer technology in the form of computer equipment and accessories.

With a computer can be a reliable supporter in input and output in a report, because the computer is one of the main alternatives to support the operational activities of a company or agency, office, public place, school, university, academic, even to households, at this time the computer is an absolute thing that must be known by everyone because computers are closely related to technological developments in the world, as many have seen that various electronic equipment now does not use analog systems anymore as before, but now many electronic devices have switched to digital systems that have more sophisticated functions and features. With the rapid development of technology, it is an obligation for humans to always be dynamic in addressing these developments, because computers have many benefits which aim to help humans to complete their work quickly and more easily even all work that should be done by humans can be done by a computer , like a robot that has been programmed to do a special job or there is also a robot that is controlled by a remote control.

Around 1950 computers were still a rare item in the world, which was only used by American military centers, in Europe or research centers in the world, but now computers are everywhere, including Indonesia. Even now the computer has become an item that cannot be separated from the daily needs of modern society. In laboratories, universities even reach household kitchens, computers have played a role and contributed a lot of convenience to every job.

Likewise in everyday life will always meet the results of products from a computer, because the calculation or processing of data has been done by humans since time immemorial. Humans seem to have been

challenged with calculations to solve various problems. According to Al-Bahra Bin Ladjamudin, 2005: 21 "Humans are those who are involved in information systems activities such as operators, information leaders, and so on". Humans have thought to find equipment that can process data more precisely and quickly, such as in universities and universities, for processing the value of student learning outcomes so as not to cause problems between errors in the process of complicated calculations and less objective assessments.

In universities in universities and academics, students are one component of the scientific community, they are input that is expected to be an output that can compensate for even develop Science and Technology. To process input into a quality and reliable output is not easy, because this requires a long journey and history, especially about what is the benchmark to create a quality output and able to compete in the market. One of the benchmarks is the assessment of student learning outcomes handled by the Academic and Student Administration Section. Assessment is carried out thoroughly, and is continuous to the learning process and results in accordance with the characteristics of the study program in question so that complete information is obtained.

All of these assessment processes are carried out in the academic section, starting from the process of inputting student data, lecturer data, course data, study plan cards and value data. These data will be processed and produce information such as the assessment of student learning outcomes in the form of Study Results Card (KHS) at the end of each semester, the overall value referred to as a Transcript or Achievement Index and a report to be known by the college academic director. Assessment can be done by a combination of various forms of assessment through examinations, implementation of assignments, self evaluation sheets, observation sheets or other forms that are appropriate to the characteristics of each subject and study program.

Value information systems in computer science academics for all study programs (Tier 1 Information System, Diploma III Informatics Management and Computer Accounting Diploma III level) have used computerized systems, but academic data processing (student data, lecturer data, cards Study plans, course data, study cards and value transcripts) at AMIK Citra Buana Indonesia Sukabumi, are still done manually with the process of using Microsoft Office and Microsoft Excel software that have been integrated with the database, but have not used a programmed system so that it cannot be accessed by fast, which often results in erroneous calculations as well as inputting the value data between the course code, the name of the course and SKS, making the report often late, even the data files or documents are not neatly arranged. In filling out the Study Plan Card it is still difficult to do at the beginning of the lecture every semester, besides the lecturer is always late in submitting the student's grades.

The academic system that has been running has several weaknesses, namely the study result card (KHS) and temporary value transcript can only be known if each student requests it from the Academic and Student Administration Section only, if not requested then the Academic and Student Administration Section never provides information about the list of grades, either from announcements on campus campuses, the KHS score sheets or temporary transcripts after the UTS or UAS, so that the number of each student always asks unclear how the results of learning are satisfying or not satisfying, even making the grades report of all students rarely done to be given to the academic director. This is because the system in the Academic and Student Administration Section of the CBI AMIK Cicurug Sukabumi campus cannot be accessed in detail and neatly because it cannot be processed by programming. Such conditions result in the queue of students who will access or know their learning outcomes, each of them is always waiting for the process of making a report on their grades and feel dissatisfied to be served by the Academic and Student Affairs Administration Section because of the limitations of available computer systems.

The Administrative Section of Academic and Student Affairs should look for values data that has been inputted in each class and department when there is one student who asks to know the KHS or its value. This can also make BAAK hassle in finding data so that work and time are less effective and efficient. The main cause of all these problems is due to the Academic Administration and Student Affairs Section of AMIK Citra Buana Indonesia Sukabumi, still using manual methods in value processing systems. That is a very big mistake if you manage more and more student learning outcomes. CBI AMIK campus in Cicurug Sukabumi should change the manual value processing method to become computerized or programmed with a programming system, because after all humans definitely need the help of other media such as computers.

For this reason it is very much needed if the CBI AMIK campus, Cicurug Sukabumi campus, especially the Administrative Section of Academic and Student Affairs, can use a computerized system to process student grades. Researchers really hope that the new system that will be created can provide the best solution for Akademik Citra Buana Indonesia Sukabumi) especially for the Academic and Student Administration Section and for its students.

II. Formulation & Limitation Of Problems

Formulation of the problem

Based on the problems stated above, the problem can be formulated as follows:

1. How the value information system is running on the Cicikug branch of the CIK AMIK.
2. How is the method of accessing the current value at the CBI AMIK branch of the Cicurug branch.
3. Are there any lists of courses, SKS lists, student lists, and lists of lecturers neatly stored.
4. Available process of filling out Study Plan Card (KRS) conducted at the beginning of each semester.
5. How do the lecturer lecturers submit the results of processing student scores to the Academic and Student Administration Section.
6. How to process subject data input and calculation of current value data.
7. Is there any printing of KHS and transcripts of temporary values automatically when students request it.
8. Is there a report on student scores based on student names and courses.

Scope of problem

The scope of the problem in the information processing system of student learning outcomes can only be limited to data processing starting from the KRS processing, course data, student data, lecturer data and value data. If it's not managed properly, it won't run smoothly. The author will implement a new system design using PHP programs and MYSQL databases which can limit the following problems:

1. By using PHP programs and MYSQL databases it can make it easier to access value data than the manual method.
2. With the creation of an online value-based information system, it can facilitate the work of the Academic and Student Administration Section in processing value and making reports effective, efficient and flexible.
3. The new information system will be better than the old system so that it can provide accurate and fast information to students, because the old system is no longer reliable.

III. Purpose Of Research

Purpose of Research

1. As one of the requirements to take a thesis examination exam in obtaining a Computer Bachelor (S1) degree in Informatics Engineering (IT) study program.
2. As a comparison for other researchers who examine the same problem in processing value problems.
3. Add insight and development of knowledge in the field of computerized value processing systems.
4. To find out how the student value information system through the PHP program and MYSQL database at AMIK Citra Buana Indonesia Sukabumi.
5. To find out how far online-based information systems can solve problems in processing value.
6. To find out the various advantages and advantages of implementing an information system by utilizing an internet connection.
7. Through an online system, lecturers can input their own grades from each subject they teach.
8. The new system will be better than the old system so that it can provide accurate and fast information to every student.

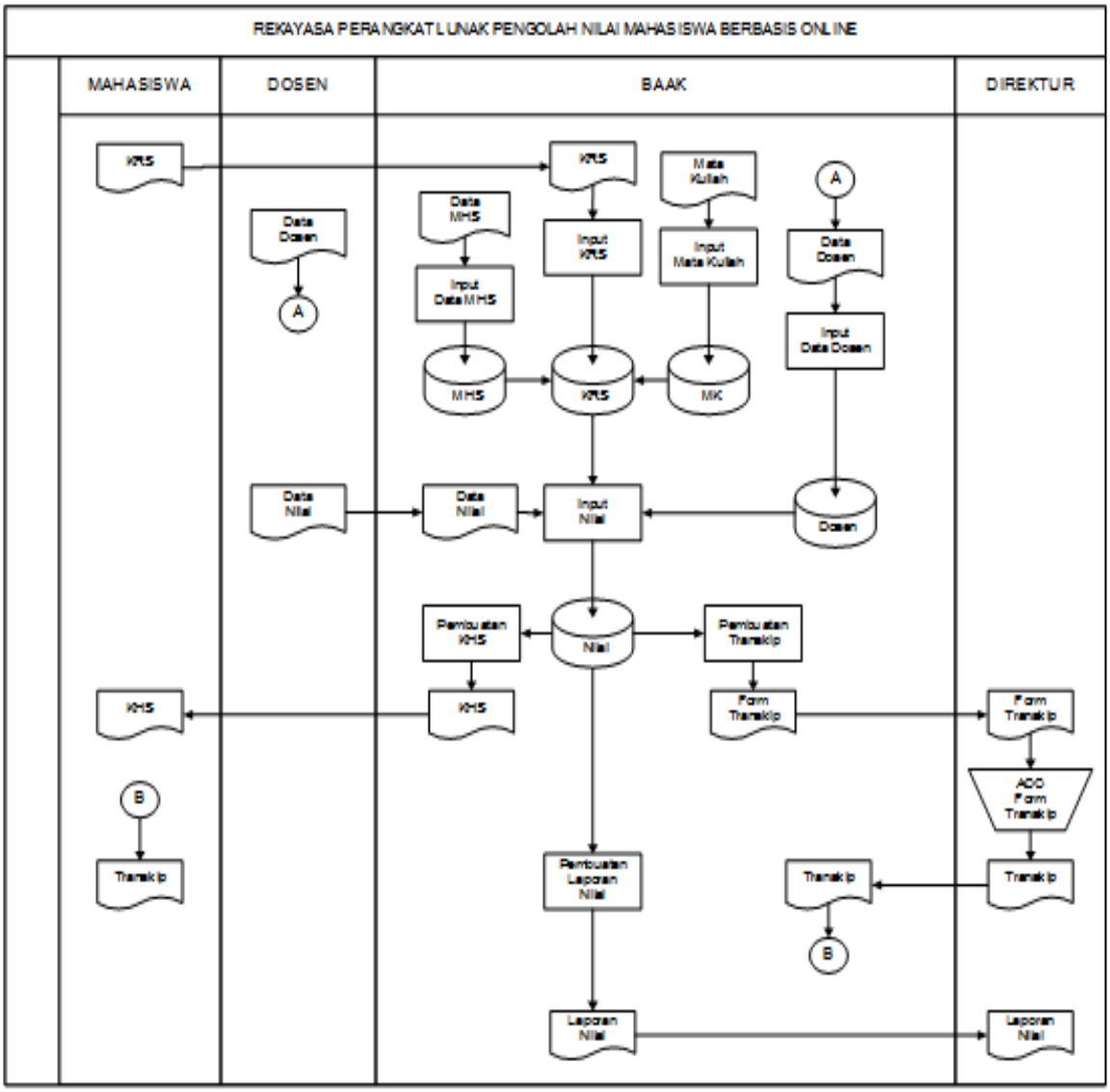
IV. Discussion

Information System Design

System design is a strategy to solve problems and develop the best solution for one problem. System design includes parts organizing systems into subsystems, and allocation of hardware, software components and procedures. System design is the initial stage where the initial approach to solving problems. The design of a new system is implemented to improve and automate the existing system.In the design of a new system first make a procedural design that explains the procedure for implementing new work by including a computer as a tool in the data processing process. Document flow in the new system does not experience changes in the process but on the system. In managing student value data, the Administrative Section of Academic and Student Affairs often encounters obstacles when looking at the value data, thus the system design is needed.

Proposed Flowmap

In the design stage of this process, aims to produce a value information system design that can be a general description to the user, where the procedures made do not experience many changes from the current system, only differ in the use of computerized systems. The following below is a description of the flowmap proposed in the value processing system.



Ficture 1, Proposed Flow Map

Context Diagram

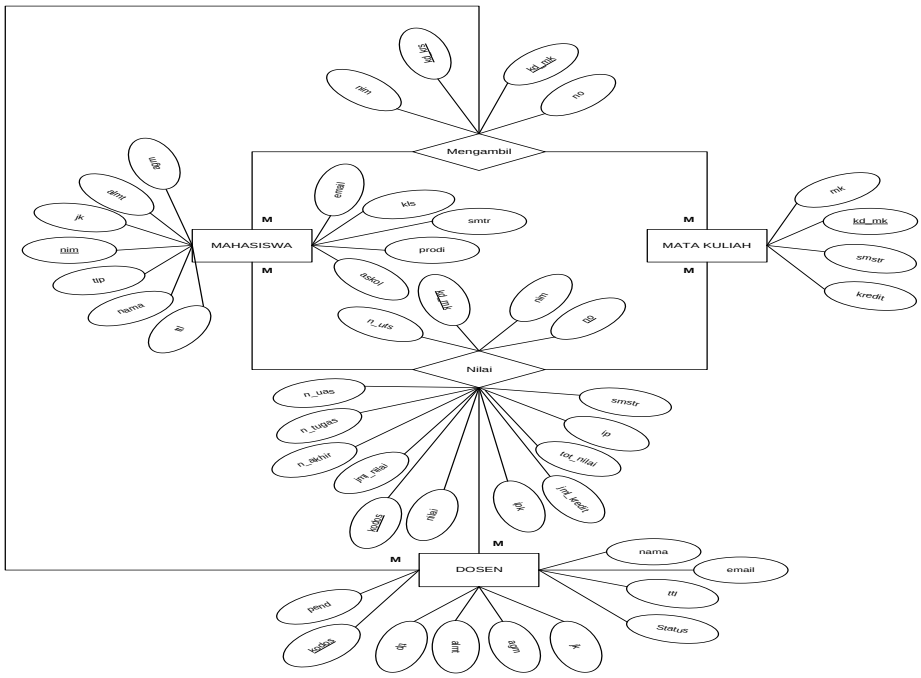
In this context diagram is made to limit the system and show the interaction with components outside the system, which is a broad system description. Analysis of the context diagram in the value information system is as follows:

Zero diagram, The following is the proposed system of value processing applications with zero diagrams.

Detailed 1.0The following is the proposed system of value processing applications with detailed diagram 1.0,

Detailed 3.0Following are the proposed systems of value processing applications with detailed diagrams 3.0

Database Design, Relationship Entity Diagram, Entity Relationship Diagram is useful for organizing data in relation to other data. The following is a diagram of the relation entities of the proposed system in value processing.



Ficture 2 Entity Relationship Diagram (ERD).

The purpose of normalization is the process of the relationship between fields that have one and the same field, so that each field becomes a single unit that is connected by the key field. Non-Normal Form This form is data that will be recorded, there is no requirement to follow the format, it can be incomplete or duplicated data. Data is collected as is according to when inputting.

1. The 1st Form of Normalization (1NF), At this stage the removal of several repeating element groups is made to become a single one that interacts between each row in a table. Following is the first form of normalization (1NF).
2. Form of the 2nd Normalization (2NF), the second normal form is based on the concept of full functional dependence, the following is the second form of normalization.
3. The 3rd Form of Normalization (3NF), After the attributes have fulfilled the second normal, then it can fulfill the other third normal condition, that is the non-key attribute must not have functional dependency with other key attributes. The following is the third form of normalization.

Table Description

Implementation or implementation stage is a form of activity which is an advanced series and software design activities. The database used is the MySQL application. Following is the implementation of the database.

1. Table Name: Student
2. Function: Save student parent data
3. Type: Master / Master
4. Primary Key: NIM

Table Structure:

1. Table Name: tb_dosen
2. Function: Save master lecturer data
3. Type: Master / Master
4. Primary Key: NID

Table Structure:

1. Table Name: tb_mk
2. Function: Save the course data
3. Type: Master / Master
4. Primary Key: kd_mk

Table Structure:

1. Table Name: tb_krs
2. Function: Save data krs
3. Type: Parent / transaction
4. Primary Key: kd_krs

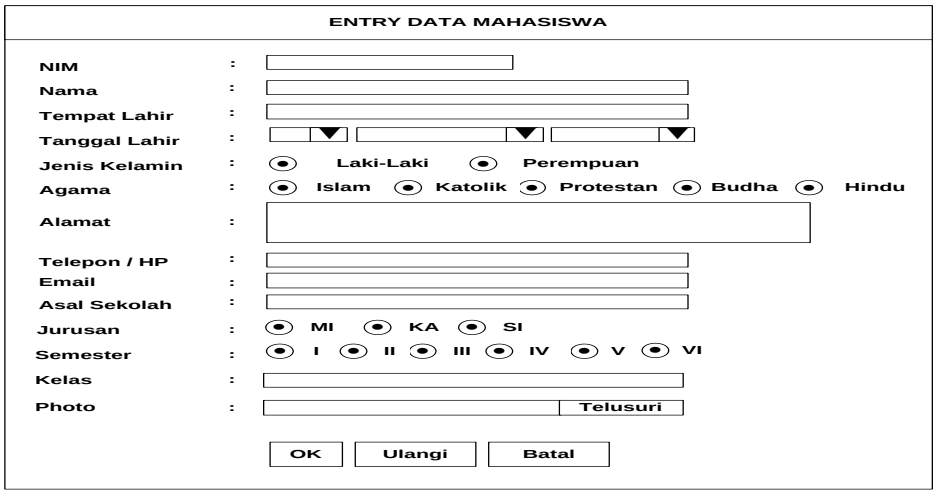
Table Structure:
1. Table Name: tb_daftarmk
2. Function: Keep a list of courses
3. Type: Parent / transaction
4. Primary Key: no

Table Structure:
1. Table Name: tb_nilai
2. Function: Save value data
3. Type: parent / transaction
4. Primary Key: Nonil

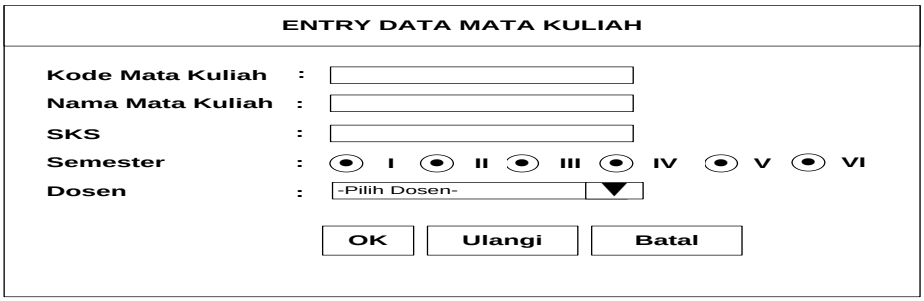
Table Structure:
1. Table Name: tb_daftarnilai
2. Function: Save dafatarnilai
3. Type: Parent / transaction
4. Primary Key: bro

Layout Login

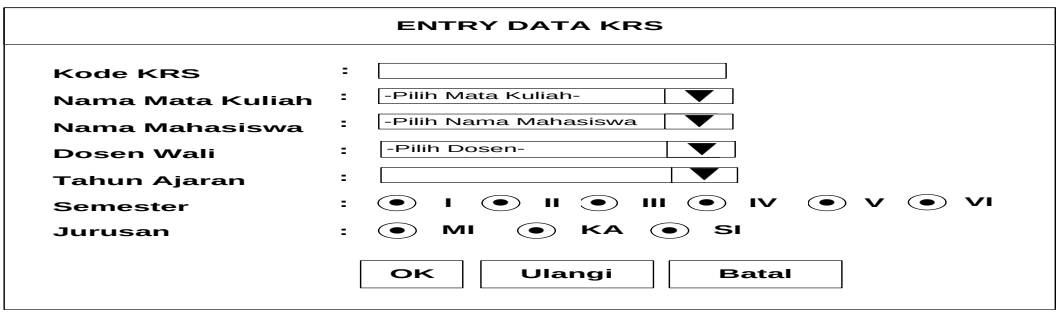
In order to maintain data security managed by the administration department of unauthorized parties, the password must be used when the program is first run. Following is the draft login form: Input Screen Layout



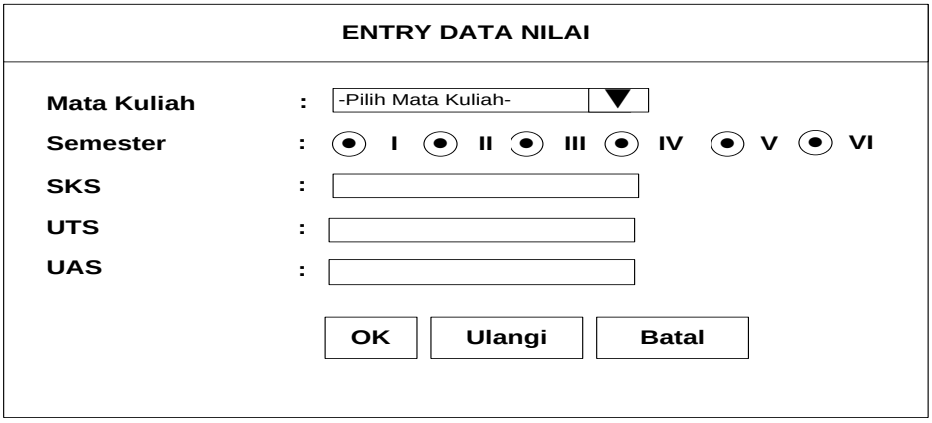
Picture 3 Student of Data Form



Picture 4 Course Data Form



Picture 5 KRS Data Form



Picture 6 Value Data Form

System Implementation: Implementation or implementation stage is a form of activity which is an advanced series and software design activities. Implementation is intended as an effort to realize the results of software design. This means that the result of the implementation of the software development program is the application process that has been created and can be used and functioning properly.

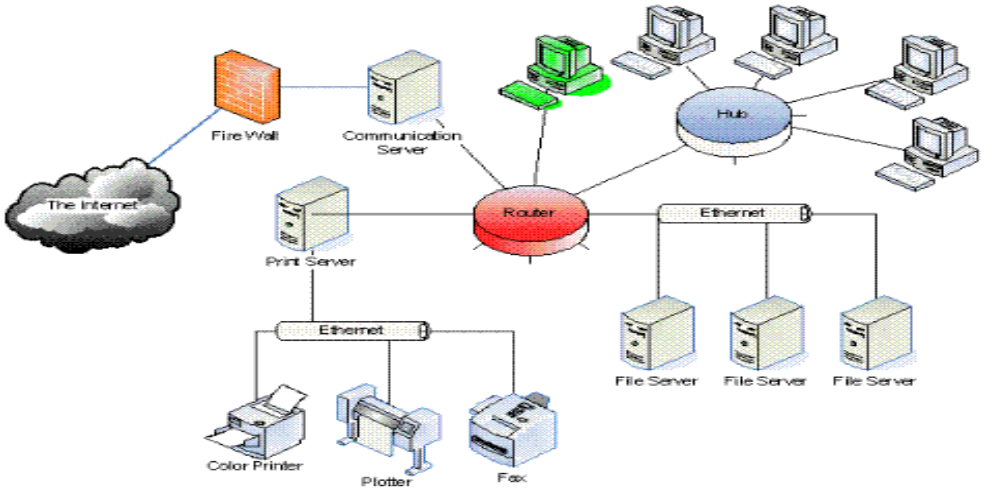
Computer System Configuration: A computer is a device that allows a person to be more helpful and lighter, especially in dealing with work problems, especially when humans are faced with the problem of calculating large numbers and have a high level of complexity. The following is an explanation of the computer configuration used when the implementation is minimal, namely:

System Environment: Testing the system program produced requires hardware and software, the configuration of the device is, Hardware Configuration (Server):

1. Processor: Intel Pentium 4 at least 2.8 GHz
2. Memory: DDRAM minimum 512 MB

Hardware Configuration (Client):

1. Konfigurasi Komputer Server
2. Konfigurasi Jaringan
3. Konfigurasi Perangkat Lunak Server
4. Konfigurasi Perangkat Lunak Client
5. Konfiguras Sistem Jaringan



Picture 7, Network System Configuration

System Implementation

At the usage stage, the user or operator will use the application with the direction given by the Trainer. In this case, the system is operated by 1 (one) operator for each faculty / academic. With this system, efficiency can be done, especially time, cost and labor, the information presented is fast and accurate.

V. Conclusion

Based on the results of the analysis on the planning of the student value processing system at AMIK Citra Buana Indonesia, especially Cicurug-Sukabumi VI campus, it can be concluded that the value processing that has been applied in the academic section is not optimal, because there are still some deficiencies, namely frequent input errors so that the number of students who complained about the value, this is because the processing system is still manual and information on student learning outcomes cannot be accessed online.

By building a value processing system software, it will make it easier for information from that value to run well, but not always limitation of facilities to make work activities become obstacles, but how to get around so that these limitations become significant obstacles. The author hopes that users / users can apply systems designed using PHP and MySQL databases to streamline and streamline work on the BAAK section and provide accurate information to their students.

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