DECISION SUPPORT SYSTEM APPLICATION FOR SELECTING CANDIDATE STUDENT'S BASE ON RESULT OF TEST USING FUZZY METHOD AT SMK TERATAI PUTIH GLOBAL 1 BEKASI

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ABSTRACT

SMK Teratai Putih Global 1 Bekasi is one of excellent school in Bekasi who have a relationship cooperation with several leading companies that are the JABOTABEK. Each new school year, schoola reception and selection of new students through the Psikotest several such tests, interviews, examinations eyes, tattoos and piercings, as well as sports, to determine the process of determining the class in penjurusan SMK Teratai Putih Global 1 Bekasi In this selection process is often problems arise such as limited selection committee that cause errors analyzing the status of students who accepted or rejected, the department placement error according to their talents and abilities of students, and duration of the selection of students.

Implementation of Decision Support System for selecting candidates vocational students can save time and facilitate the committee in penjurusan determining the class, and provide appropriate information penjurusan and accurate to the students. The method used in the implementation of this Decision Support System is a fuzzy method.
Keywords: decision support systems, fuzzy methods.

1. INTRODUCTION

1.1 ISSUE BACKGROUND

SMK Teratai Putih Global 1 Bekasi is one of the leading schools located in Bekasi area which has partnerships with several leading companies are located in areas JABOTABEK. At each new school year, the school occupied by the reception and selection of new students, whether prospective students must be accepted or rejected by several tests conducted by the school, including tests conducted Psikotest, interviewing, checking eyes, tattoos and piercings and exercise test include sit ups, push ups and running. The process of determining the direction based on 2 programs that have been selected skill when registering. Direction in the Global White Lotus SMK 1 Bekasi include Electricity Engineering, Automotive Engineering, Electronics Engineering and Computer Engineering and Networks.

1.2 LITERATURE REVIEW

Fuzzy Inference System

Mamdani method is often known as max-min method. This method was introduced by Ebrahim Mamdani in 1975. To get the output, required 4 stages:

1. Formation of the set of fuzzy
   In Mamdani method, both the variable input and output variables are divided into one or more fuzzy sets
2. Implications of the application functionality
   In Mamdani method, the functions used are the implications Min.
3. Composition rules
   Unlike monotonic reasoning, if the system consists of several rules, the inference obtained from the correlation between rule sets. There are 3 methods used in performing fuzzy inference system, ie max, additives and the probabilistic OR (probor).

4. Affirmations (*defuzzy*)
The assertion that the decision was taken to a specific problem based on the results of previous stages.

1.3 Objectives

The purpose of this final task of research is to build a decision support system for selecting prospective students based on test results SMK

The purpose of this study is the final project:

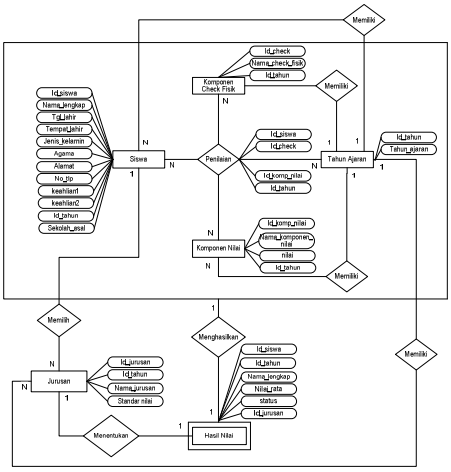
1. To facilitate and accelerate the process of selecting students who are accepted and rejected status and penjurusan process
2. 2. To minimize errors in analyzing the status and resulting penjurusan accurate information.

To save time and utilize the existing power source.

2. MODEL, DESIGN, ANALYSIS, AND IMPLEMENTATION

2.1 ERD

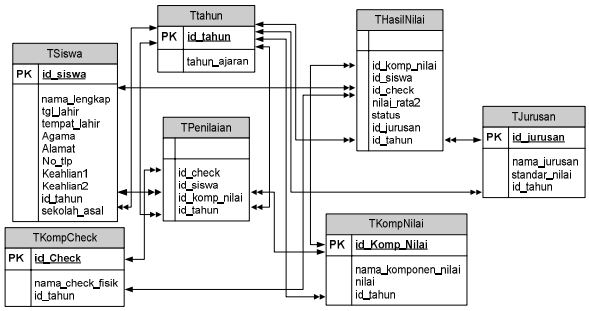
Decision Support Sisteim Selecting Candidates for these students can be described as in the picture below:



Gambar 2.1 ERD (*Entity Relationship Diagram*)

2.2 Schema Relations

Table relations decision support system for selecting prospective students in SMK Teratai Putih Global 1 Bekasi:



Gambar 2.2 Relasi tabel

2.3 diagram konteks

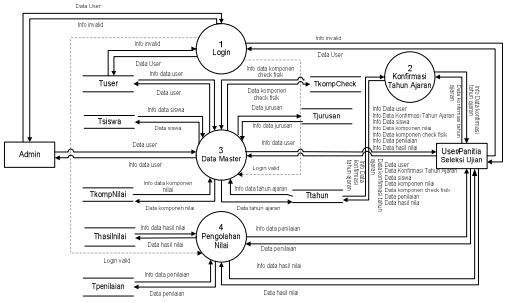
Decision Support System for selecting candidates Vocational Students in the SMK Teratai Putih Global 1 Bekasi:



Gambar 2.3 Diagram konteks

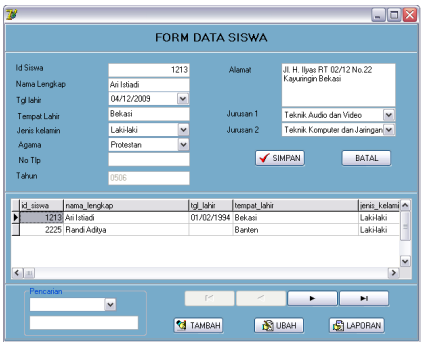
2.4 DFD

Here's a design data flow diagram of the proposed decision support system for selecting prospective students in SMK SMK Global White Lotus 1 Bekasi:

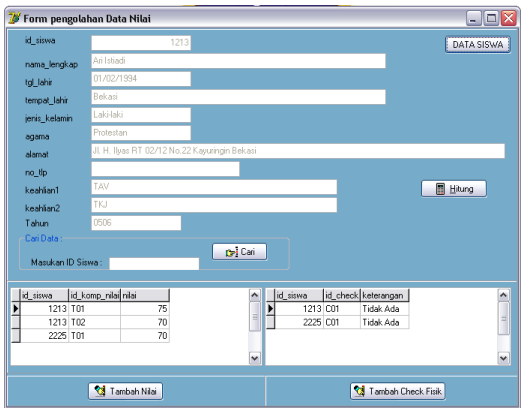


Gambar 2.4 DFD level 0

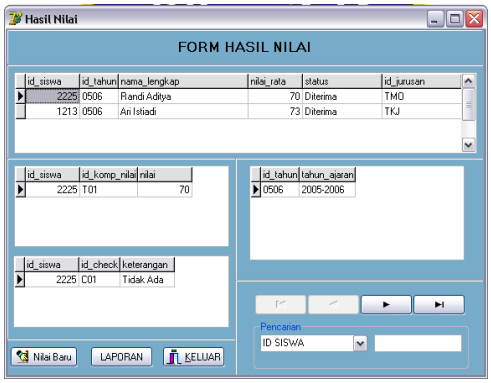
2.4 Implementasi



Gambar 2.5 Pengolahan siswa



Gambar 2.6 Pengolahan Nilai



Gambar 2.7 Hasil Penjurusan

3. RESULTS AND DISCUSSION

Results and discussion presented research and analysis is obtained, various facts and are considered important phenomenon can be described further in this section.

4. CONCLUSIONS AND SUGGESTIONS

4.1 Conclusion

On the basis of the discussion of the research has been done, it can diperolah kesimpilan as follows:

1. Decision support system that was built to facilitate the staff selection committee to accelerate the process of test selection and the status of students in vocational penjurusan White Lotus Global 1 Bekasi.
2. With the decision support system can minimize errors and the determination of the status and penjurusan.
3. Decision support system that was built to provide information quickly and accurately about penjurusan students.

4.2 Suggestions Based on the above conclusions, the suggestions are expected decision support systems in the Global White Lotus SMK 1 Bekasi this could be developed in line with the development of system specification user needs that must be met in achieving a higher stage and the performance of a better system.

5. REFERENCES

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