INFORMATION SYSTEM FOR THE ADMISSION OF NEW STUDENT CANDIDATES FOR THE BIDIKSIBA SCHOLARSHIP PATHWAY POLYTEKNIK NEGERI MALANG

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Abstract
The Bidikiba Program (Education Scholarships Around Bukit Asam) is a program of educational scholarships provided by PT Bukit Asam Tbk (PTBA) to students high school graduates or equivalent from underprivileged families around the operational area companies to be able to continue their education at university. Implementation of Bidikiba scholarship acceptance selection is still done manually registration process, selection exams, and ranking of prospective students. Registration This is done by recording prospective students using Excel and if any Changes or errors in prospective students' data must be reported to the admin make edits to the data. The system is expected to help resolve problems in the process of accepting prospective students for the Bidikiba scholarship programat Malang State Polytechnic.

Keywords: *Scholarship, BidikSiba, Malang State Polytechnic*

1. INTRODUCTION

The Bidikiba Program (Education Scholarship Around Bukit Asam) is a scholarship program education provided by PT Bukit Asam Tbk (PTBA) to students who have graduated from high school or equals from underprivileged families around the company's operational areas to be able to continue university education. The Bidikiba program is PTBA's commitment to breaking the chain of poverty through education. Since 2010 By 2022 there will be 333 Bidikiba scholarship recipients. A total of 147 people of them are still actively studying, 109 people have become alumni and work in various sectors of business (Department of Communication and Informatics, 2022). This Bidikiba program is in collaboration with several polytechnics in Indonesia such as Sriwijaya State Polytechnic, State Polytechnic Malang, and Lampung State Polytechnic (PT Bukit Asam Tbk, 2023). In the candidate selection process for new students, there are several factors to consider, such as entrance exam results and economic ability which includes parents' occupation, parents' income, land area, number of rooms, number of bathrooms, electricity bill, land and building tax, amount of debt, amount siblings, and parental status.

Currently, the selection process for Bidikiba scholarships is still being carried out manual of the registration process, selection exams, and ranking of prospective students. Registration This is done by recording prospective students using Excel and if there are any changes Prospective students must report data errors to the admin to make edits data. The selection exam process is carried out using a manual method using paper as the main medium. Implementation and assessment of answers are carried out with corrections manually and input into Excel manually. This process carries the risk of errors during the correction and inputting of values. The ranking process is carried out manually without system assistance decision support which requires more time to implement compared to using a decision support system.

Based on these problems, the researcher decided to develop a system information on Acceptance of Prospective New Students for the Malang State Polytechnic Bidikiba Scholarship Pathway. The system developed is expected to help the selection process for prospective new students starting from registration, and exam management which includes implementation and correction of exam results, as well as ranking of prospective students who pass the Bidikiba scholarship. The Analytical Hierarchy Process Method (AHP) is expected to be able to give weight to the criteria according to the level of importance of each criterion in

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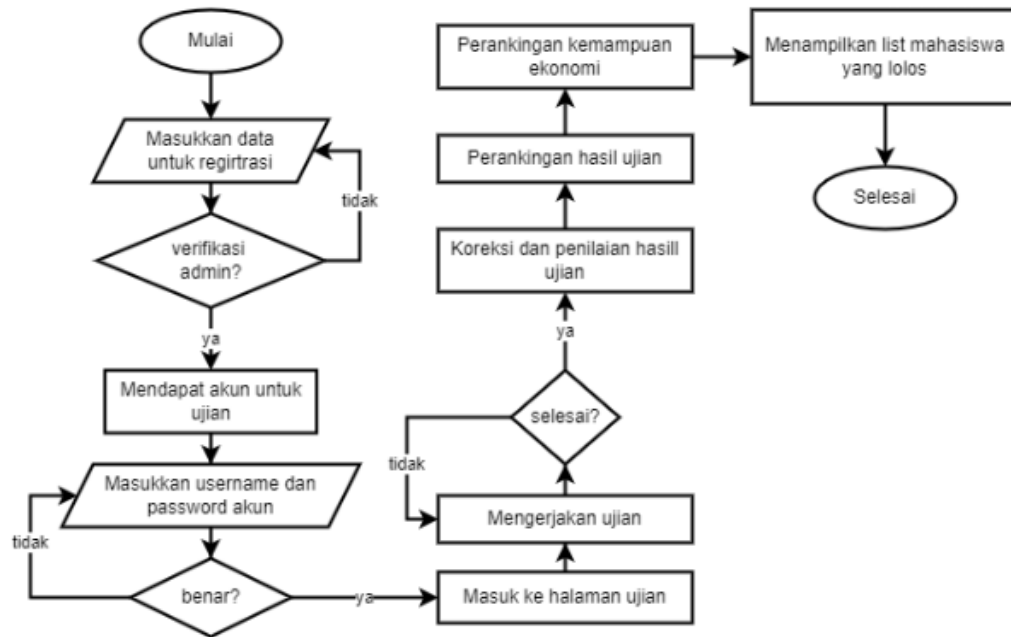
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decision-making. Multi-Objective Optimize Method by Ratio Analysis (MOORA) is expected to provide alternative ranking results for prospective new program students Bidikiba scholarships are based on scores from existing criteria. Thus the Analytical method Hierarchy Process (AHP) is used to determine the weight of each criterion and the Multi- bjective Optimization by Ratio Analysis (MOORA) is used to determine ranking results. The system is expected to help resolve problems in the process of accepting candidates for Bidikiba scholarship program students at Malang State Polytechnic.

2. IMPLEMENTATION METHOD

Through the system development needs analysis stage, the next process is carried out functional process design using flowcharts and use case diagrams. This system was built there are four actors in it consisting of admin, PT Bukit Asam Tbk, supervisor, and prospective students. Details of the activities of each actor are shown in the figure below.
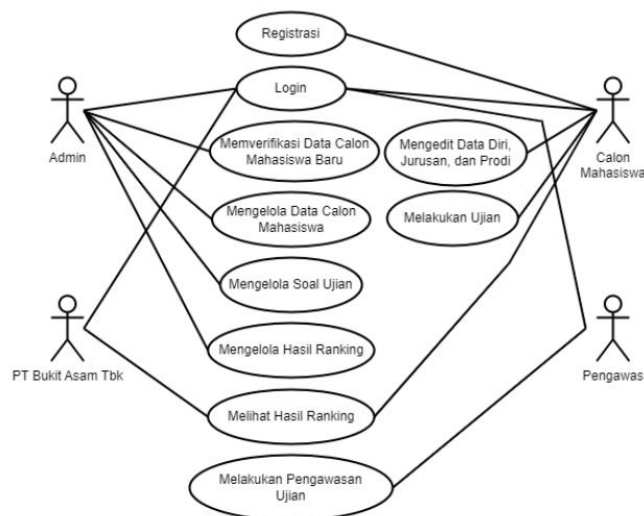
Admin, PT Bukit Asam Tbk, supervisors, and prospective students have their respective roles and interactions with the system being developed. Prospective students are the main users of the system prospective students will register by filling in the data where. This data will be processed by the system which will be used for ranking according to economic abilities, prospective students can also edit the data that has been entered as input. Prospective students can take exams and see the results of the rankings. Admin This system plays a role in managing data which includes checking data as well verify prospective student data, managing exam questions including input, editing, and deleting exam questions, and managing the results of ranking by the system. Meanwhile, PT Bukit Asam Tbk can see the ranking results for students who pass the Bidikiba scholarship program as well as, and the supervising actor will supervise the exam while it is taking place. The process flow of the system construction is described with a flowchart. Details of the process flow are shown in the figure below.

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Flowchart Sistem

The system flow starts from prospective students registering by entering data according to the form provided, the data will be verified by the admin if there are any deficiencies or errors in filling out will be returned to the prospective student for adjustment. Candidate Students who have been verified by the admin will get an account, that account is used to log in during the exam. The account that logs in will be validated by the system, candidate Students who have successfully logged in can start the exam. The exam form has been completed 27 completed by students will be stored and managed by the system to produce grades. The test scores will be ranked by the system, in addition to ranking according to grades ranking is also based on economic ability. Ranking of the economic capabilities of the data taken from prospective student registration data, prospective student registration data is processed by the system so that ranking can be carried out using the AHP and MOORA methods. After the process is carried out This ranking produces a list of students who have passed the Bidikiba scholarship program.

## 3. RESEARCH RESULTS AND DISCUSSION
3.1 Implementation System

This subchapter discusses the implementation of the interface of the system that has been planned. The following is the implementation of the interface that has been designed and implemented.

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Landing Page

The landing page above contains login access, the latest, program description scholarships, and institution details. This page is designed to provide information that is clear, and makes it easier for users to navigate to find the information needed
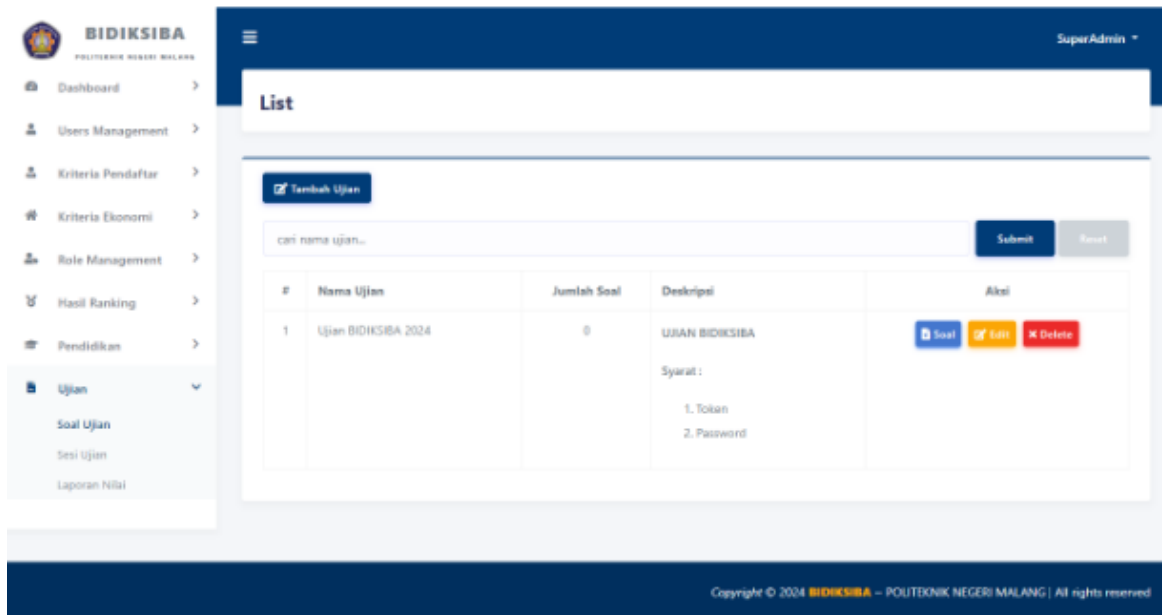
The manage exam page includes add, edit, delete, view, search, and add questions to the exam, this page can only be accessed by the super admin.
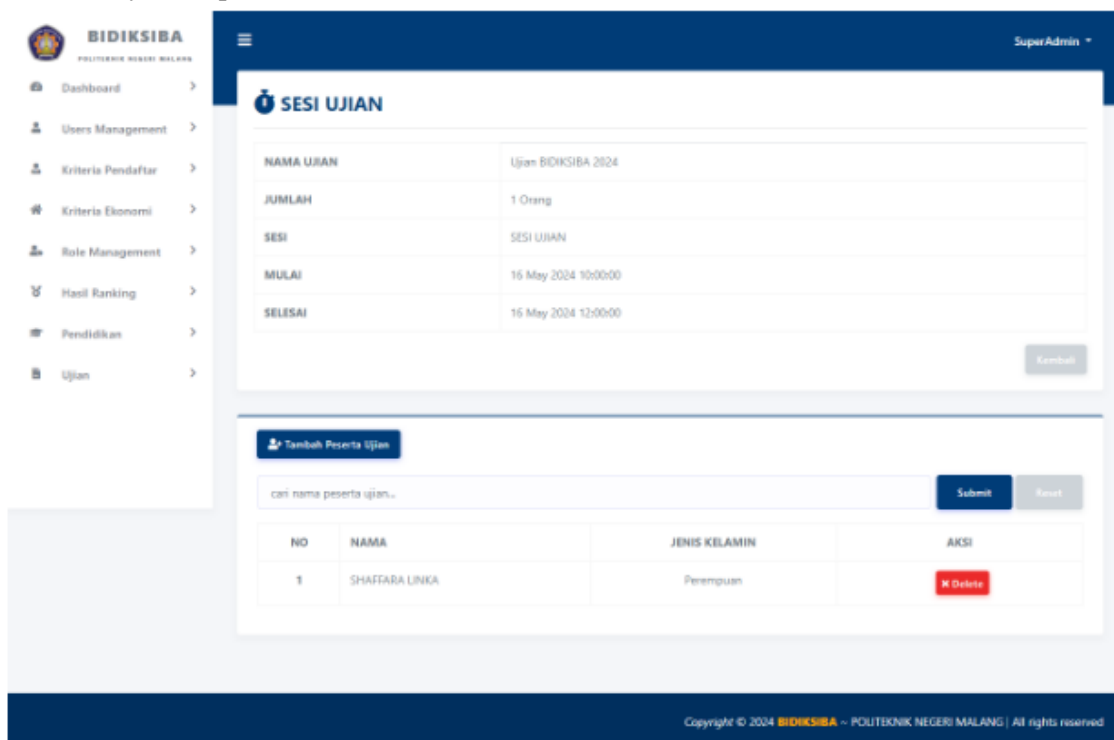
Result Exam

3. CONSULSION

The Information System for Admission of Prospective New Students (SIPMB) for the Bidikmisi/Biksiba scholarship pathway at Malang State Polytechnic is designed to simplify the selection, registration, and

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administration process of prospective students applying for scholarships. This system allows prospective students to register online, upload the required files, and receive information regarding their admission status in real-time.

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