ABSTRACT

In higher education, students are the primary component, and their academic quality is expected to develop throughout their university years. Each semester, students receive final grades that serve as benchmarks for their academic performance. The progress of students directly impacts the evaluation and advancement of Telkom University. During an interview with the Head of the Study Program, it was revealed that predicting student graduation is challenging when only general factors are considered. To address this issue, the Head of the Study Program aims to create a dashboard that predicts student graduation by implementing the Naïve Bayes method.

Predicting student graduation involves developing an initial pattern using the Naïve Bayes method with attributes such as gender, semester grades ($IPS1$ to $IPS6$), and graduation status. These attributes were obtained from student data spanning from 2016 to 2019. The accuracy achieved by this method is 83.11%. The designed dashboard for predicting student graduation has been verified, validated, and meets user requirements. This dashboard will be useful for the Head of the Study Program to monitor and predict student graduation.

This simplified approach not only facilitates accurate graduation schedule projections but also allows for the identification of potential areas for intervention or improvement. By pinpointing these areas, the university can take proactive steps to enhance student performance and support those who may be at risk of delayed graduation. This method ultimately contributes to better learning outcomes and overall academic management effectiveness.

The implementation of the Naïve Bayes method for predicting student graduation represents a significant advancement for Telkom University. The dashboard's ability to provide reliable predictions and actionable insights will play a crucial role in supporting the academic journey of students. This innovation underscores the university's commitment to leveraging data-driven approaches to enhance educational quality and ensure student success.

Keywords: Data Mining, Naïve Bayes Classifier, Student Graduation