

Classification for Study Decision Using Decision Tree Algorithm on Vocational High School

MUHAMMAD NAUFAL IMAN

(Pembimbing : Heru Agus Santoso, Ph.D)

Teknik Informatika - S1, FIK, Universitas Dian Nuswantoro

www.dinus.ac.id

Email : 111201207114@mhs.dinus.ac.id

ABSTRAK

The decision of students of 9th grade to continue their school to vocational high schools aims that students get better focus on developing abilities. This strategy is expected to maximize the potential, passion or talent of students, so it will also maximize the students to think more maturely on the next school. Determination of the program that the student choose will have an impact on subsequent academic activities. Determining specialization with many complex factors manually spends quite much time, and requires extra accuracy for teachers to advise the students by counseling teacher and homeroom teacher. By using data mining classification approach implemented in decision study, it would be possible to overcome the student major problem in Nusantara Vocational High School Comal. In this study, Decision Tree Algorithm is performed for decision study classification in Nusantara Vocational High School Comal. Moreover, Cross-Industry Standard Process for Data Mining (CRISP-DM) and Knowledge Discovery in Database (KDD) phase are also performed for data processing techniques. Experimental result of decision study classification in this study provides the result of 75.00% accuracy. From this experimental result, system prototyping is developed for the visualization that can help Nusantara Vocational High School Comal to predict their student major

Kata Kunci : Data Mining, Classification, Decision Tree, Student Decision

Classification for Study Decision Using Decision Tree Algorithm on Vocational High School

MUHAMMAD NAUFAL IMAN

(Lecturer : Heru Agus Santoso, Ph.D)

Bachelor of Informatics Engineering - S1, Faculty of Computer Science, DINUS University

www.dinus.ac.id

Email : 111201207114@mhs.dinus.ac.id

ABSTRACT

The decision of students of 9th grade to continue their school to vocational high schools aims that students get better focus on developing abilities. This strategy is expected to maximize the potential, passion or talent of students, so it will also maximize the students to think more maturely on the next school. Determination of the program that the student choose will have an impact on subsequent academic activities. Determining specialization with many complex factors manually spends quite much time, and requires extra accuracy for teachers to advise the students by counseling teacher and homeroom teacher. By using data mining classification approach implemented in decision study, it would be possible to overcome the student major problem in Nusantara Vocational High School Comal. In this study, Decision Tree Algorithm is performed for decision study classification in Nusantara Vocational High School Comal. Moreover, Cross-Industry Standard Process for Data Mining (CRISP-DM) and Knowledge Discovery in Database (KDD) phase are also performed for data processing techniques. Experimental result of decision study classification in this study provides the result of 75.00% accuracy. From this experimental result, system prototyping is developed for the visualization that can help Nusantara Vocational High School Comal to predict their student major

Keyword : Data Mining, Classification, Decision Tree, Student Decision