AKHYAR AZNI. Grade Point Average Prediction of Computer Science Department Students using VF15 Algorithm. Counseled by Aziz Kustiyo.

Feature Voting Intervals 5 describes a concept by performing classification on each feature separately. VF15 is a non-incremental algorithm in which all training instances are processed simultaneously. Two steps of VF15 algorithms are training and predicting steps. Training is used to explain the character and relationships between features, and predicting is used to test the pattern resulted from training step to get accuracy value. This study applied VF15 algorithm to predict GPA value of the following academic year based on feature which is value of current academic course. First step training was conducted to explain the distribution class of student’s GPA and the ability of college students, while the second step predicting can reveal opportunities to learn and know the GPA value that can be obtained by students in the following academic year.

The set of data had been used for this research, the first is first year student data that predicted to second year student GPA from generation 2005/2006, second is second year student data that predicted to third year student GPA from generation 2005/2006, and the last is first year student data that predicted to second year data GPA from generation 2006/2007.

In the training step, features on the first data which value equals to a given class are Ekonomi Umum and Pengantar Matematika, features on the second data which value equals to a given class are commonly all features, and the last data which value equals to a given class are Ekonomi Umum, Agama, Bahasa Indonesia, PIP, Pengantar Matematika and Pengantar Kewirausahaan. In predicting step, process had been done with and without GPA feature. As the result, we got accuracy value in the first data with GPA feature is 45.68 %, and without GPA feature is 46.91 %. In the second data with GPA feature got value 49.56 % and without GPA feature got value 50.80 %. In the last data with GPA feature got value 60.28 % and without GPA feature got value 51.80 %. The result showed that there was a declining accuracy as compared to the previous studies due to differences in the testing data and type of prediction.

Keywords: Feature, Grade Point Average, VF15 Algorithm, Training Description, Accuracy