ABSTRACT

A high quality software could be mean as a product which have number of error or small bug. Various methods are to reduce the number of bugs, such as bugzilla tracking system that stored information can be used to investigate a different phenomenon. Project management is necessary to predicting needed time to handling a bug in order to make good project planning. Previous research primitive attribute (low level attribute) to predict bug lifetime by recommending attribute usage to higher level. Therefore, attribute usage to higher level can be predicted success in bug lifetime accuracy. In this research, identification higher level attribute used to improving a bug lifetime prediction accuracy in software project. To identify which significant attribute influences toward bug’s age prediction used information value search (infogain). Second step, that is by measuring classification accuracy based on founded attributes, therefore uses number of method such as, Zero_R, One_R, Decision Tree, dan Naïve Bayes. This methods are good for dataset which have correlation, involved 24 unit attributes, 7 classes bug lifetime and dataset around 1000 bugs. The result of the research identify 6 higher level attributes, where both of them (summary and last change time) assumed have significant influence in predicting bug lifetime. Combination higher level attribute (2 attributes), lower level (3 attributes) and selection (1 attribute) produces Kappa index substantial level (0.81). It indicating with increase higher level attribute to bug lifetime prediction could be works better than last research result kappa index moderate (0.60).

Keywords: bug’s lifetime prediction, higher level attribute, low level attribute.