

ABSTRACT

Telkom University is a higher education institution that organizes the process of education, research, and community service. To ensure the sustainability of its activities, Telkom University needs to maintain the quality of academic and non-academic business processes in a sustainable manner. For this reason, Telkom University adopts and implements ISO 9001: 2015 for Quality Management System and implements the National Higher Education Standards (SN DIKTI) according to Permen Ristekdikti No 44 of 2015.

Telkom University Internal Audit Unit (SAI) has the authority to oversee and oversee the implementation of each process that takes place in accordance with applicable standards through the Internal Quality Audit (AMI) process. In the AMI activities, a web-based audit management system is used to simplify the audit process and the reporting process of audit results. However the audit report generated by this application are too simple and do not provide depth analysis.

Therefore in this final project an analysis feature has been added for reporting audit results. The Output is the classification of grouping the average value of each clause for each auditee by using the k-means clustering technique based on the clause or audit standard being used. The application was developed with the CodeIgniter framework based on PHP by utilizing a model, view and control (MVC) framework.

Application testing is done by using Catalyst, Whitebox and Blackbox testing of this application to cluster the auditee so that the output results in the form of a web-based dot chart display from the test results are all successful except for clustering the plotter diagram.

Keywords: Audit, ISO 9001: 2015, K-means clustering, CodeIgniter.