ABSTRACT

To support distance learning, online learning, and blended learning, a Learning Management System (LMS) is needed. In its development, there are three main components in the LMS that are made using Moodle, namely: users, courses, and enrollment. The right learning process can ensure the normal running of the LMS. To find out student learning patterns, an event log is needed that is obtained through the LMS. This log contains information about various learning processes. The Process Mining technique is applied to assess independent learning during lectures, by assessing independent learning, which is described in a process model, with the aim that lecturers can know the progress of students, and in the future can determine what learning methods are suitable for students taught by the lecturer concerned. Process mining can also assist in identifying the effectiveness of learning and curriculum by monitoring and evaluating student performance. The Heuristict miner algorithm can model student learning patterns in Object Oriented Programming and Data Structures on the LMS well based on the resulting conformance values.

Keywords — Event Log, Process Mining, Heuristic Miner Algorithm