Abstract

Association is a data mining technique to discover the rules of connectivity between a combination of items. Associative rules of scheduling analysis courses in an institution is not possible timetable clashes courses and lecturers do not teach the same course or different on the hour, the day, and the same room. Schedule for making a lot of factors that should be considered to obtain the optimal schedule, and often can not be satisfactory because not all needs are met. Therefore, it needs to set a limit in the preparation of schedules that are to be met (hard constraint), and not to be met (soft constraint) but remains a reference in the scheduling process. The techniques used in this study were CT-Pro algorithm, using two important analysis of the value of the minimum support and confidence with CFP-Tree data structure. The two values are used by the iterative process to find any combination schedule of courses called the join and grouping processes to eliminate subjects who do not meet minimum support. Based on the test results obtained knowledge consisting of courses with space and the same lecturer with the value of support and confidencenya. Having obtained the value of support and confidence it will do the selection of data by graph coloring algorithm and that can later be used by the scheduler and allows you to adjust the scheduling.

Key word: *associative, hard constraint, soft constraint, CT-Pro algorithm, CFP-Tree, minimum support, confidence, knowledge, algoritma Graph coloring*