

Title: Computer Laboratory Usage Management and Computer Monitoring for the University of Mindanao – Information and Communication Technology Center using Apriori Algorithm

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EXECUTIVE SUMMARY

Due to the existing problems inside the computer laboratories, the proponents developed a system that can monitor students' activities where every monitor of the students can easily be viewed in the faculty's unit, it can monitor application logs, and admin can determine the hungriest bandwidth consumer client and most visited sites. The researchers used different methods of programming techniques and algorithm such as student's screen monitoring, and screen broadcasting uses socket programming techniques for communication of all the units. Viewing of application logs of the students which can be viewed by the faculty uses the JNA external library from JAVA library which will record the title name of the application and process name and other than that, the app logger can determine that task switching of the user. App Blocker uses the system registry as which will show a list of installed software running on the computer. The Orientation and laboratory attendance used jasper report for reporting. The researchers used a simple sorting algorithm to determine the top 20 hungriest bandwidth consumers. Lastly, to determine the most visited sites, the researchers used the apriori algorithm which is based according to the minimum support given by the user to get the most visited sites.

Keywords: LAN; Remote Connection; client-server; Apriori Algorithm.