

ABSTRACT

Human effort to get the valuable information through the internet become more rapidly increased along with the growth of information technology. A diploma and academic transcript are also becoming a valuable information that is more resistant with the forgery behaviour by the graduated student itself. Moreover, the world of a great job competition nowadays are very competitive and difficult to get if we had not enough GPA on our transcript. Things like these could trigger someone; which is graduated student, to forge his/her diploma and academic transcript (or even the copies). For the institution itself, who have rights to release a legal diploma and academic transcript, are being prejudiced and smeared of its reputation. Therefore, we need a mechanism for supporting to do the validation of such diploma and academic transcript and also the copies, because it's important for knowing whether it stil the original one or not.

This Final Work design and implement a system to validate diploma and academic transcript of graduated students from STT Telkom which can be accessed through the web and using the hashing method with SHA-1 algorithm for adding guarantee of the student's diploma and academic transcript integrity file; which is stored on the Database Server, and also mirroring mechanism onto the file and or database (from Master DB to Web DB) as the effort to return the integrity of the file and the record if there is possibilities of being changed.

The ability of the system to do its functionalities properly and also its defense from being attack by SQL Injection are important advantages for the used and development in the future. On the implementation, the greater sum of data can affect the sum of time that needed by the system for doing the recovery.

Keywords: diploma, academic transcript, forgery, validation, web, hashing, integrity, SHA-1, Database Server, mirroring, possibilities of being changed, DB Web, DB Master.