Development of Semi-Automatic SQL Injection Exploitation Tool

**A Project Report**

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By

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To

**Maharaja Surajmal Insitute of Technology**

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**Certificate**

I hereby declare that this project report entitled “**Development of semi- automatic SQL injection tool**” by **Nishant Kumar Verma** enrolment number  **00396307214**, being submitted partial fulfilment of the requirements for the award of the degree of Bachelor of Technology (Computer Science Engineering)during academic year of 2015, is a bonafide record of my original work carried out under the guidance and supervision of **Mr. Lalit Narayan** and has not been presented elsewhere.

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# **ABSTRACT**

System administrators frequently rely on intrusion detection tools to protect their systems against SQL Injection, one of the most dangerous security threats in database-centric web applications. However, the real effectiveness of those tools is usually unknown until attacked by a hacker, which may lead administrators to put an unjustifiable level of trust in the tools they use. In this report, we present an experimental evaluation of the SQL Injection detection tool that we have prepared. To test the tool in a realistic scenario, Vulnerability and Attack Injection is applied in a setup based on two web applications of different sizes and complexities. Results show that the assessed tools have a very low effectiveness and only perform well under specific circumstances but still better than many of industrial standards, which highlight the limitations of current intrusion detection tools in detecting SQL Injection attacks. This tool which we have developed fills up the gap between the manual SQL injection and automated SQL injection. The main goal of the tools is to detect the SQL injection Vulnerability and exploitation of the same.