

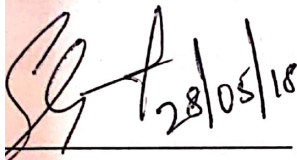
SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru - 560057,
Department of Computer Science and Engineering



Certificate

Certified that the Project Work entitled "**A FRAMEWORK TO DETECT SQL INJECTION BY RUDERS FOR SAAS PROVIDERS**" carried out by **SATYAM BHARTI (ISG14CS101)**, **JBHAM SINGH (ISG14CS106)**, **SOURAV KUMAR (ISG14CS109)** bonafide students of Sapthagiri College of Engineering, in partial fulfillment for the award of **Bachelor of Engineering in Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.



Signature of the Guide

Prof. Gayathri Satish

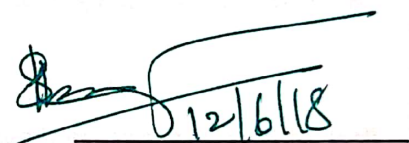
Asst. Professor



Signature of the HOD

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Signature of the Principal

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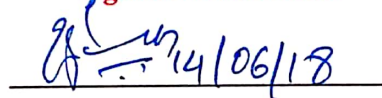
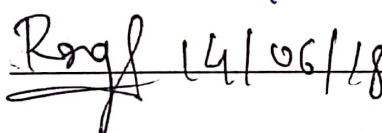
Principal

INTERNAL EXAMINATION

Name of the Examiners

1. Dr. Yogish H.K
2. Prof. Ranganatha. H.R

Signature with Date

ABSTRACT

Recently, we are attending to the proliferation of Cloud Computing (CC) as the new trending internet-based- Platform thanks to the outsourcing paradigm, CC is enabling many services. Software as a Service (SaaS) is one of those cloud-based-services.

Indeed, SaaS model allows providers to reduce the cost of maintenance and management by transferring traditional on premise deployment to public Cloud. Clients can subscribe, in self-service, to SaaS services based on a pay-peruse model.

However, since user data are outsourced to the Cloud, serious security breaches are rising and could harm the reputation of providers and slow down the subscription of clients.

SQL injection attack (SQLIA) is one of the most critical SaaS vulnerabilities that allow attackers to violate the availability, confidentiality and integrity of user data.

In this work, we propose SQL injection intrusion detection framework as a service for SaaS providers, SQLIIDaaS, which allows a SaaS provider to detect SQLIAs targeting several SaaS applications without reading, analyzing or modifying the source code.

To achieve SQL query/HTTP request mapping, we propose an event correlation based on the similarity between literals in SQL queries and parameters in HTTP requests. SQLIIDaaS is integrated and validated in Amazon Web Services (AWS).

A SaaS provider can subscribe to this framework and launch its own set of virtual machines which holds on-demand self-service, resource pooling, rapid elasticity, and measured service properties.