XSS DETECTION SYSTEM

FOR JAVASCRIPT VULNERABILITIES

Project Report – A

Submitted in partial fulfillment of the requirements

for the degree of

Bachelor of Engineering (Computer Engineering)

by:

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Under the Guidance of

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(2015-2016)

Internal Approval Sheet

TERNA ENGINEERING COLLEGE, NERUL

Department of Computer Engineering

Academic Year 2015-16

CERTIFICATE

This is to certify that the project entitled **"XSS DETECTION SYSTEM FOR JAVASCRIPT VULNERABILITIES"** is a bonafide work of

Kelkar Kaustubh Sunil	TU3F1311025
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submitted to the University of Mumbai in partial fulfilment of the requirement for the award of the Bachelor of Engineering (Computer Engineering).

Guide **Project Convener** **Head of Department** **Principal**

Approval Sheet

Project Report Approval

This Project Report – A entitled "***XSS Detection System for JavaScript Vulnerabilities***" by following students is approved for the degree of ***B.E. in "Computer Engineering"***.

Submitted by:

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Examiners Name & Signature:

1.----------

2.----------

Date:

Place:

Declaration

We declare that this written submission represents our ideas in our own words and where others' ideas or words have been included, we have adequately cited and referenced the original sources. We also declare that we have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in our submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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Abstract

As an impact of globalization, use of internet is increased radically. So, transactions through Internet are established as new trend which is efficient and effective. But, it has other side of Identity thefts. Social engineering is performed to steal user identity for the benefit of the attacker. Cross Site Scripting is one of those attacks. Using XSS, cookie stealing is performed due to flaws in JavaScript. These vulnerabilities can be overcome using Input In-house filtering, Output filtering and Application proxy.

The motive to implement this server side component is to combat persistent as well as non-persistent attacks. And client need not download any security application on browser side. As XSS is hard to detect and complex as well. So, implementing server-side solution will cover all type of users.

Out of which, we are implementing application level proxy which contains Reverse proxy, Parser containing JavaScript tester and predefined Java Scripts. Reverse proxy will filter request to server and response from server. This request and response will be forwarded to Parser to check for Hexadecimal encoding or ASCII representation. Advanced searching algorithm is used to reduce server overhead and both persistent and non-persistent attack are detected by our application.

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Acknowledgement

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