



Rudra (A Semi-Automated Web Application Testing Framework)

Vishal Sharma | Krishna Chandra Tripathi | M. L. Sharma

¹Department of Information Technology, Maharaja Agrasen Institute of Technology, Delhi

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ABSTRACT

Most companies have their website registered and Thousands of them are being created each hour. While lots of people create websites, only few of them keep the security of websites in their mind while creating them. That is why often our websites are found vulnerable to web attacks. The person who tests web security needs tools to perform web application testing. Rudra is a collection of those tools. Rudra have integrated those tools in such a way that it helps the web application tester do his work easily without having to worry about the syntax used for 24 tools integrated in Rudra.

KEYWORDS: Web Security, Information Security, Pentesting, Bug Bounty, vulnerability, Website Testing, framework, web application testing.

INTRODUCTION

Rudra means "who eradicates problems from their roots".

A Web application tester's root problem is he has to use 20+ tools and have to remember syntax for each tool. To solve this problem I have created a framework in bash scripting and named it Rudra.

Rudra a semi-automated Web application testing framework. Which lets users use 20+ tools in a single place without remembering syntax to use them.

Not It just help use tools without remembering syntax it also save tools installation time as it install most frequently used major tools in a single command with zero error

Rudra is a Web Application Testing Framework that is supposed to mainly focus on easy usage of tools and

work and perform testing on surface level with minimal hardware requirement.

OBJECTIVES

I have been a part of the Bug Hunter Community for more than 7+months and have been playing around tools used by web application testers. What I noticed is that most tools require manual use which can be easily automated for each tool but none of the frameworks offer it with custom tool usage. As I was new to all this I understood the pain of remembering cmd to use each specific tool to keep that struggle in mind. I decided to create a framework which can help people like me who struggle to remember cmd for each tool and looking for a framework which can help them access most commonly used tools with a single cmd.

This project aims to address problems every web application tester faces. Objective is to create a framework which is easy to set up and use with a wide range of tools.

RELATED WORK

There are numerous Frameworks that have been done related to Web application testing framework.

Project-Morya^[1] is a project lead by anubhav singh a web application tester and researcher. Project Morya is a fully automated dns enumeration script. He has made it easy to recon for subdomains. It's one of the best tools to discover hidden subdomains as it uses the best wordlist for subdomain brute forcing.

Recon FTW^[2] is the most commonly used Recon Framework. It's one of the best Recon Framework for recon related to Web applications. It is also a fully automated web application Framework which gives best results when it is about recon no other framework comes close to this framework created by six2dez. It uses multiple methods for finding subdomains and urls. It performs a wide recon on target which generates high traffic on the server that is why researchers use this tool on vps as it requires high bandwidth and resources to work properly.

INSTALLING RUDRA

Rudra^[3] can be installed on any Ubuntu based os easily by following the given below steps.

1. "git clone https://github.com/1amroot/Rudra"
2. "cd Rudra && chmod .*"
3. "./Rudra.sh"
4. If you need to install tools type "200" as rudra says just follow installation now all tools and wordlist must be downloaded and you will be ready to use it.

Note:-It's advised to clone Rudra in home directory or you may type "cd ~" in terminal before proceeding installation.

METHODOLOGY

The objective of this project is to create an efficient semi automated framework. How it works is simple and can be understood in the steps.

We create 2 scripts. First is the main script named Rudra.sh which is accessed every time the user wants to access the framework and second one named install.sh which setup and install tools for Framework. we know that install.sh is only accessed once when tools are installed whereas rudra.sh main script works in 4 below steps.

1. user accesses the framework script by typing "rudra" or "Rudra" in terminal.
2. User is asked to enter the tool number he wants to use. Then the user input the respective tool number.
3. User is asked to enter the path of the file required or domain name.
4. Script sets other syntax on its own and the web application tester gets the output he desired.

FUTURE SCOPE AND CONCLUSION

The project is aimed at creating Rudra { a Semi-Automated Web application testing Framework } for web application testers and bug bounty hunters. It can be highly useful for people as it is easy to install & the interface used in the framework is beginner friendly. As long as web culture keeps on growing. The need for frameworks like Rudra will remain in demand.

We can also conclude that there is still a need for Semi-Automated Web Application testing Frameworks. I am pretty sure lots of people have their own semi-automated framework setup but now it's the time to create some more useful semi-automated web application testing framework for the infosec community and make them open source.

REFERENCES

- [1] Project-Morya <https://github.com/anubhavsinghhacker/project-morya>
- [2] Reconftw <https://github.com/six2dez/reconftw>
- [3] Rudra <https://github.com/1amroot/Rudra>