

The background of the slide is a light gray gradient. It is decorated with several realistic water droplets of various sizes. Some droplets are at the top left, some are in the middle right, and others are at the bottom. They have highlights and shadows, giving them a 3D appearance.

# WEBAUDITWIZARD

PYTHON PROGRAM FOR AUDITING OF WEB APPLICATION

# GROUP MEMBERS

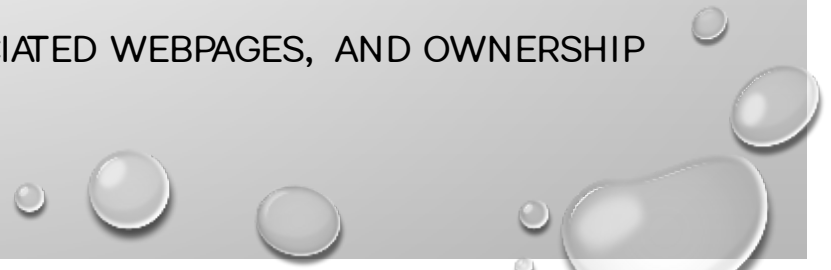
- HAMZA SHAKIL K20-1737.
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# INTRODUCTION

- IN TODAY'S DIGITAL LANDSCAPE, WEB APPLICATIONS PLAY A PIVOTAL ROLE IN THE FUNCTIONING OF BUSINESSES, ORGANIZATIONS, AND EVEN PERSONAL ACTIVITIES. AS THE RELIANCE ON WEB APPLICATIONS CONTINUES TO GROW, SO DOES THE NEED TO ENSURE THEIR SECURITY, RELIABILITY, AND COMPLIANCE WITH INDUSTRY STANDARDS. A WEB APPLICATIONS AUDIT IS A SYSTEMATIC EXAMINATION OF THESE APPLICATIONS TO IDENTIFY VULNERABILITIES, ASSESS THEIR OVERALL PERFORMANCE, AND ENSURE THAT THEY ADHERE TO BEST PRACTICES.



# THE NEED FOR WEB APPLICATIONS AUDIT

- **SECURITY ASSURANCE:**
    - IDENTIFY VULNERABILITIES AND ENSURE THE PROTECTION OF SENSITIVE DATA.
  - **REGULATORY COMPLIANCE:**
    - COMPLY WITH INDUSTRY STANDARDS AND REGULATIONS TO AVOID LEGAL CONSEQUENCES.
  - **IMPROVED PERFORMANCE:**
    - OPTIMIZE WEB APPLICATION PERFORMANCE FOR A SEAMLESS USER EXPERIENCE.
  - **INFORMATION GATHERING AND REVIEW:**
    - UNDERSTAND THE WEB DOMAIN, ASSOCIATED WEBPAGES, AND OWNERSHIP DETAILS.
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# OBJECTIVES

- ENSURING COMPLIANCE
- STRENGTHENING AUTHENTICATION AND AUTHORIZATION
- VALIDATING SCALABILITY AND AVAILABILITY
- IDENTIFYING SECURITY VULNERABILITIES

# HOW WEBAUDITWIZARD WORKS

LET'S DELVE INTO THE INNER WORKINGS OF WEBAUDITWIZARD:

- **SSL CHECKER:**  
UTILIZES PYTHON'S SSL AND SOCKET LIBRARIES TO VERIFY SSL.
- **WEBPAGE INFORMATION EXTRACTOR:**  
USES REQUESTS AND BEAUTIFULSOUP FOR HTML PARSING.
- **WHOIS INFORMATION FETCHER:**  
LEVERAGES THE WHOIS LIBRARY TO GATHER DOMAIN OWNERSHIP DETAILS.
- **WAF CHECKER:**  
EXAMINES HTTP HEADERS FOR COMMON WAF INDICATIONS

# RELEVANCE IN ACTION

- TO ILLUSTRATE THE RELEVANCE OF OUR TOOL, LET'S TAKE A MOMENT TO SEE HOW WEBAUDITWIZARD CAN BE APPLIED IN REAL-WORLD SCENARIOS:

[HTTPS:](https://colab.research.google.com/drive/12PATRX3_U7YJINBETWWWX7ZMEKT27HJU#scrollto=7YLHHMEDNOZ-)

[//COLAB.RESEARCH.GOOGLE.COM/DRIVE/12PATRX3\\_U7YJINBETWWWX7ZMEKT27HJU#SCROLLTO=7YLHHMEDNOZ-](https://colab.research.google.com/drive/12PATRX3_U7YJINBETWWWX7ZMEKT27HJU#scrollto=7YLHHMEDNOZ-)

# OUTCOMES ACHIEVED

- PERSISTENTLY UPDATING LOG.
- DETECTION OF WAF.
- DETERMINATION OF SSL.
- RATIO GRAPH OF WAF.
- VULNERABILITY ASSESSMENT.



# FUTURE UPGRADES

- IN-DEPTH EXAMINATION OF SSL CONFIGURATIONS AND VULNERABILITIES.
- INTEGRATION WITH SECURITY DATABASES.
- ENHANCED GRAPHICAL USER INTERFACE.
- PORT SCANNING.

# REFERENCES

- LIGHTBULB FRAMEWORK
  - [HTTPS://GITHUB.COM/LIGHTBULB-FRAMEWORK/LIGHTBULB-FRAMEWORK](https://github.com/lightbulb-framework/lightbulb-framework)
- WAWOOF
  - [HTTPS://GITHUB.COM/ENABLESECURITY/WAFWOOF](https://github.com/enablesecurity/wafwoof)
- WHOIS
  - [HTTPS://WWW.WHOIS.COM](https://www.whois.com)

# CONCLUSION

- IN CONCLUSION, WEBAUDITWIZARD IS NOT JUST A TOOL; IT'S A HOLISTIC SOLUTION FOR WEB APPLICATION AUDITING. IT EMPOWERS USERS TO ENSURE THE SECURITY, COMPLIANCE, AND OPTIMAL PERFORMANCE OF THEIR WEB APPLICATIONS.