

# **INFORMATION ASSURANCE AND AUDITING**

**IE 4040**

Mini Project Report

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B.Sc. (Hons) Degree in Information Technology specializing in Computer  
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## **DECLARATION**

This is my own work and has not been submitted previously for a degree at this or any other university/institute.

To the best of my knowledge, it does not contain any material published or written by another person, except as acknowledged in the text.

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## **ABSTRACT**

The world is most reliant on the Internet. Nowadays, web security is the biggest challenge in the corporate world. It is considered as the principal framework for the worldwide data society. Web applications are prone to security attacks. Web security is securing a web application layer from attacks by unauthorized users. A lot of the issues that occur over a web application is mainly due to the improper input provided by the client. This paper discusses the different aspects of web security, and its weakness. The main elements of web security techniques, such as passwords, encryption, authentication, and integrity, are also discussed in this paper. The anatomy of a web application attack and the attack techniques are also covered in detail. This paper explores several methods for combatting this class of threats and assesses why they have not proven more successful. This paper proposes a better way of minimizing this type of web vulnerabilities. It also provides the best security mechanisms for the said attacks.

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# 1. INTRODUCTION

Software security testing is the process of assessing and testing a system to discover security risks and vulnerabilities of the system and its data. There is no universal terminology, but for our purposes, we define assessments as the analysis and discovery of vulnerabilities without attempting to exploit those vulnerabilities. We define testing as the discovery and attempted exploitation of vulnerabilities.

Security testing is often broken out, somewhat arbitrarily, according to either the type of vulnerability being tested or the type of testing being done. A common thing is,

- Vulnerability Assessment – The system is scanned and analyzed for security issues.
- Penetration Testing – The system undergoes analysis and attack from simulated malicious attackers.
- Runtime Testing – The system undergoes analysis and security testing from an end-user.
- Code Review – The system code undergoes a detailed review and analysis, looking specifically for security vulnerabilities.

Note that risk assessment, which is commonly listed as part of security testing, is not included in this list. That is because a risk assessment is not actually a test but rather the analysis of the perceived severity of different risks (software security, personnel security, hardware security, etc.) and any mitigation steps for those risks.

## 2. Tools for Web application testing

Top 10 Testing Automation Tools for Web application Testing.

- Selenium  
Selenium is a testing framework to perform web application testing across various browsers and platforms like Windows, Mac, and Linux. Selenium helps the testers to write tests in different programming languages like Java, PHP, C#, Python, Groovy, Ruby, and Perl. It offers a record and playback feature to write tests without learning Selenium IDE.
- TestingWhiz  
TestingWhiz is a test automation tool with the code-less scripting by Cygnet Infotech, a CMMi Level 3 IT solutions provider. TestingWhiz tool's Enterprise edition offers a complete package of various automated testing solutions like web testing, software testing, database testing, API testing, mobile app testing, regression test suite maintenance, optimization, and automation, and cross-browser testing.
- HPE Unified Functional Testing (HP – UFT formerly QTP)  
HP QuickTest Professional was renamed to HPE Unified Functional Testing. HPE UFT offers testing automation for functional and regression testing for software applications. Visual Basic Scripting Edition scripting language is used by this tool to register the test processes and operates the various objects and controls in testing the applications.
- TestComplete  
TestComplete is a functional testing platform that offers various solutions to automate testing for desktop, web, and

mobile applications by SmartBear Software.

- Ranorex

anorex Studio offers various testing automation tools that cover testing all desktop, web, and mobile applications.

- Sahi

Sahi is a testing automation tool to automate web applications testing. The open-source Sahi is written in Java and JavaScript programming languages.

- Watir

Watir is an open-source testing tool made up of Ruby libraries to automate web application testing. It is pronounced as “water.”

- Tosca Testsuite

Tosca Testsuite by Tricentis uses model-based test automation to automate software testing.

- Telerik TestStudio

Telerik TestStudio offers one solution to automate desktop, web, and mobile application testing including UI, load, and performance testing.

- Katalon Studio

Katalon Studio is a free automation testing solution developed by Katalon LLC. The software is built on top of the open-source automation frameworks Selenium, Appium with a specialized IDE interface for API, web and mobile testing. This tool includes a full package of powerful features that help overcome common challenges in web UI test automation.



### 3. Introduction to “ZAP” penetration testing tool

Zed Attack Proxy (ZAP) is a free, open-source penetration testing tool being maintained under the umbrella of the Open Web Application Security Project (OWASP). ZAP is explicitly designed for testing web applications and is both flexible and extensible.

At its core, ZAP is what is known as a “man-in-the-middle proxy.” It stands between the tester’s browser and the web application so that it can intercept and inspect messages sent between the browser and web application, modify the contents if needed, and then forward those packets on to the destination. It can be used as a stand-alone application and as a daemon process.



Fig 3.1

If there is another network proxy already in use, as in many corporate environments, ZAP can be configured to connect to that proxy.



Fig 3.2

ZAP provides functionality for a range of skill levels – from developers, to testers new to security testing, to security testing specialists. ZAP has versions for each major OS and Docker, so you are not tied to a single OS. Additional functionality is freely available from a variety of add-ons in the ZAP Marketplace, accessible from within the ZAP client.

Because ZAP is open-source, the source code can be examined to see exactly how the functionality is implemented. Anyone can volunteer to work on ZAP, fix bugs, add features, create pull requests to pull fixes into the project, and author add-ons to support specialized situations.

## 4. Steps of auditing web application using “ZAP”

- we can download zap our pc by following link.

Link - [zaproxy.org/download/](https://zaproxy.org/download/)

It supports many operating systems, and we can choose the relevant setup

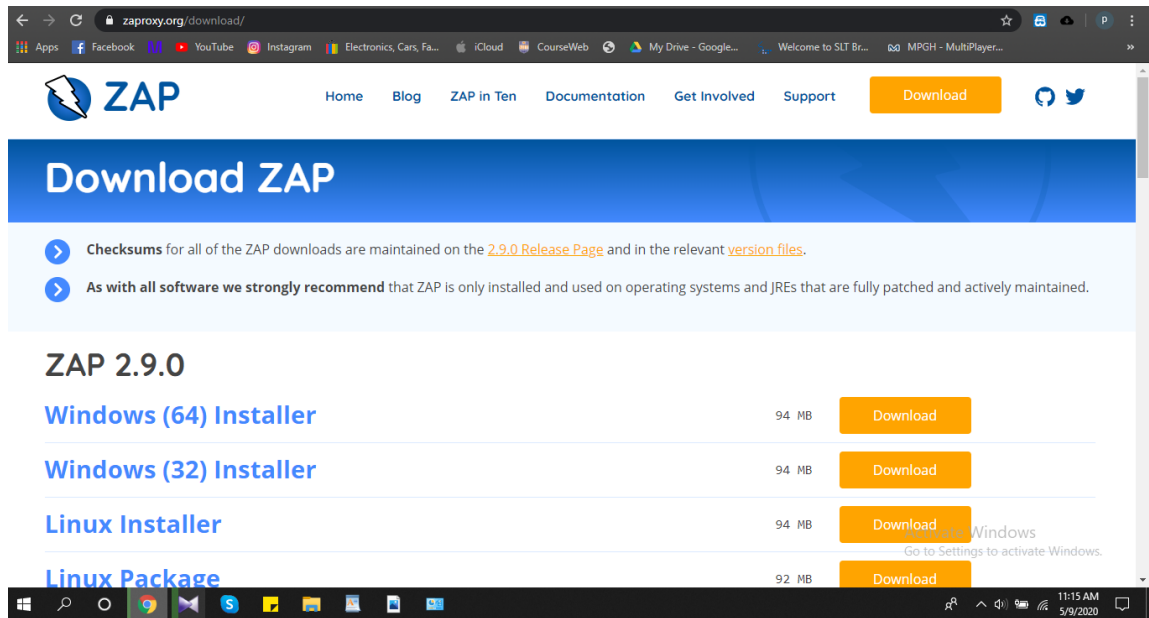


Fig 4.1: downloading ZAP

- After installing zap setup open it. this is the zap user interface.

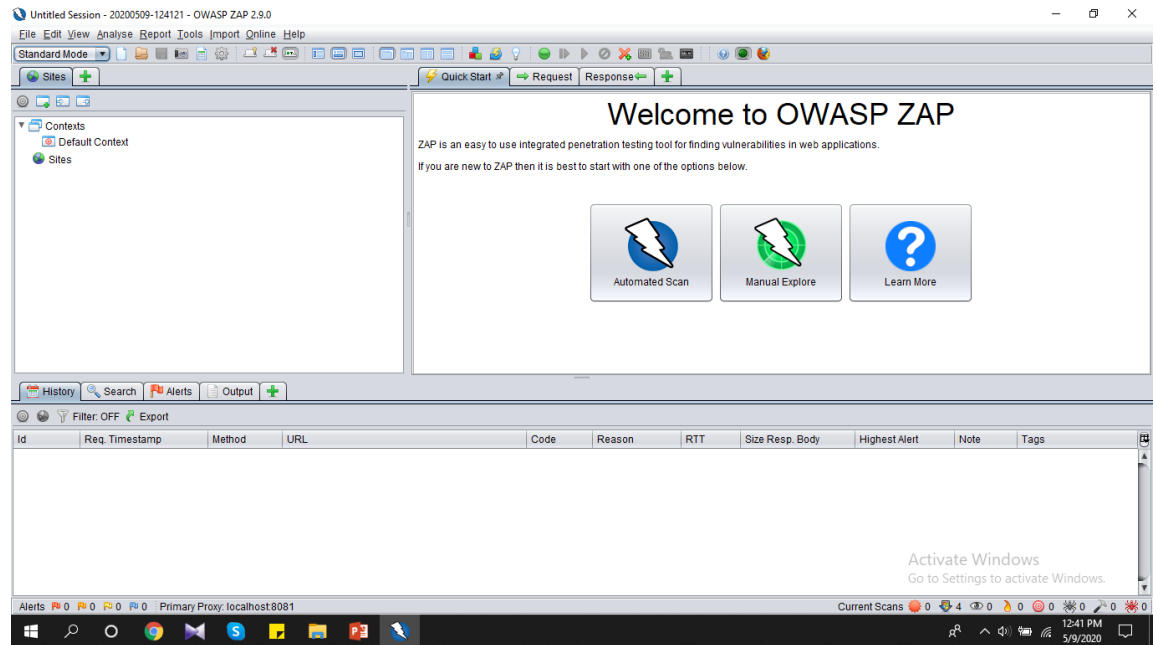


Fig 4.2 : ZAP User interface

- It has two primary scan type as automated and manual. Choose the manual scan type because we can get more details about web application on this scan type.

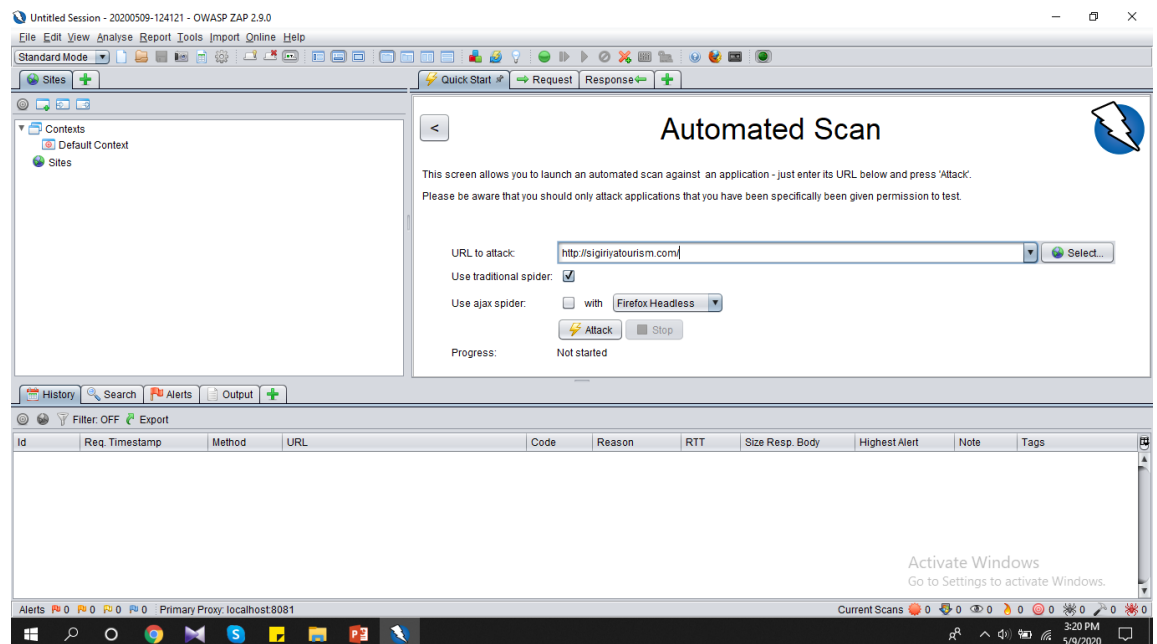


Fig 4.3 : choose scan type

- Get a relevant web sites link. I choose sigiriyatourism.com as websites for audit. It is SriLankan websites and includes much information about Sigiriya and tourism hotel about the Sigiriya area.

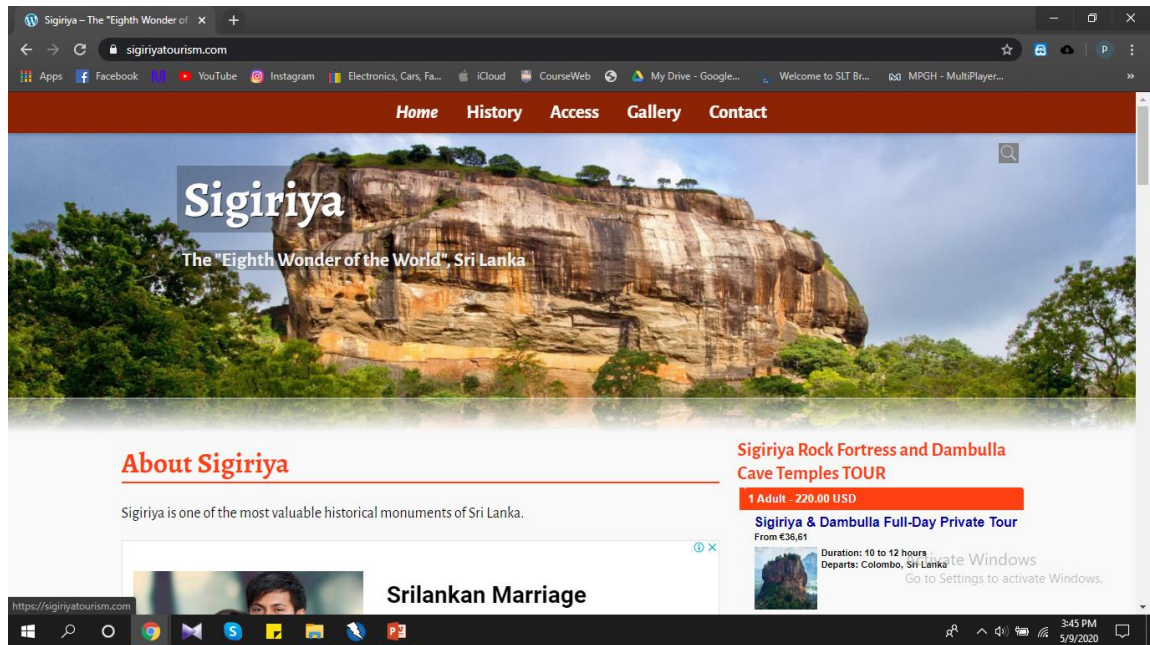


Fig 4.4 : our website

- Go to zap the user interface and choose a manual scan mood. Next, copy our website URL and copy it into the zap. Next, we can choose a web browser like Chrome or firefox. I select Chrome and click the launch browser.

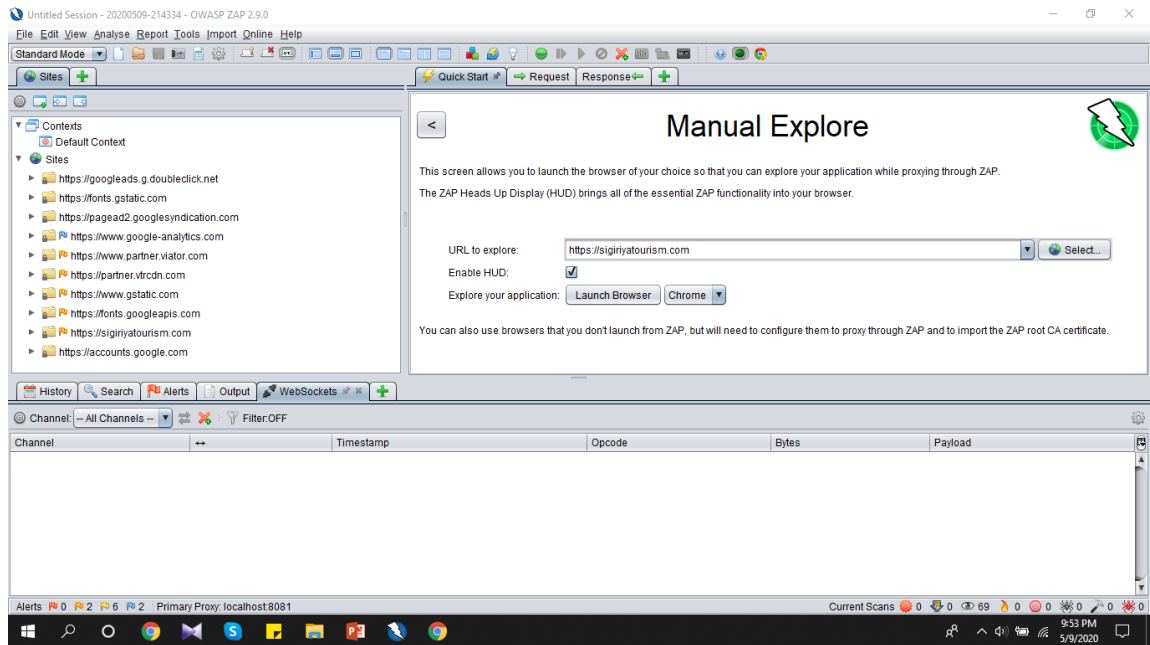


Fig 4.5 : start scan

- Now we can see scan website the left side shows our website's backlink web site in the zap user interface

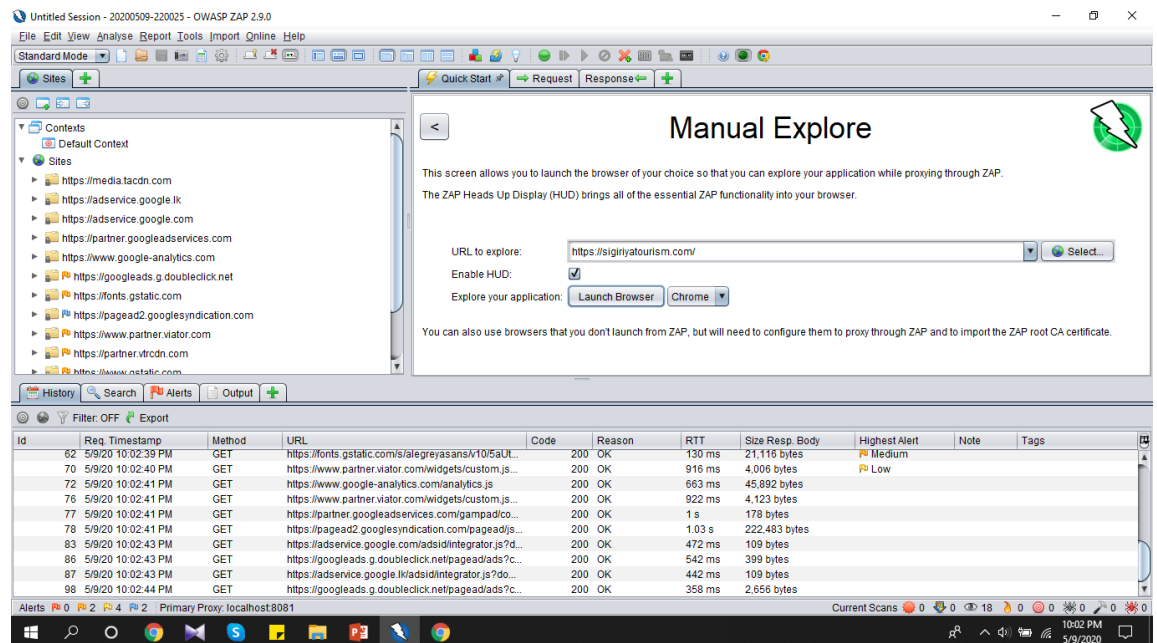


Fig 4.6 : scanning

- After the scan, we can look like this interface, and it has a backlink site and alert information. Mention more details about the alert. Alert display 4 colors like red orange yellow blue. This color shows the risk level of alert.

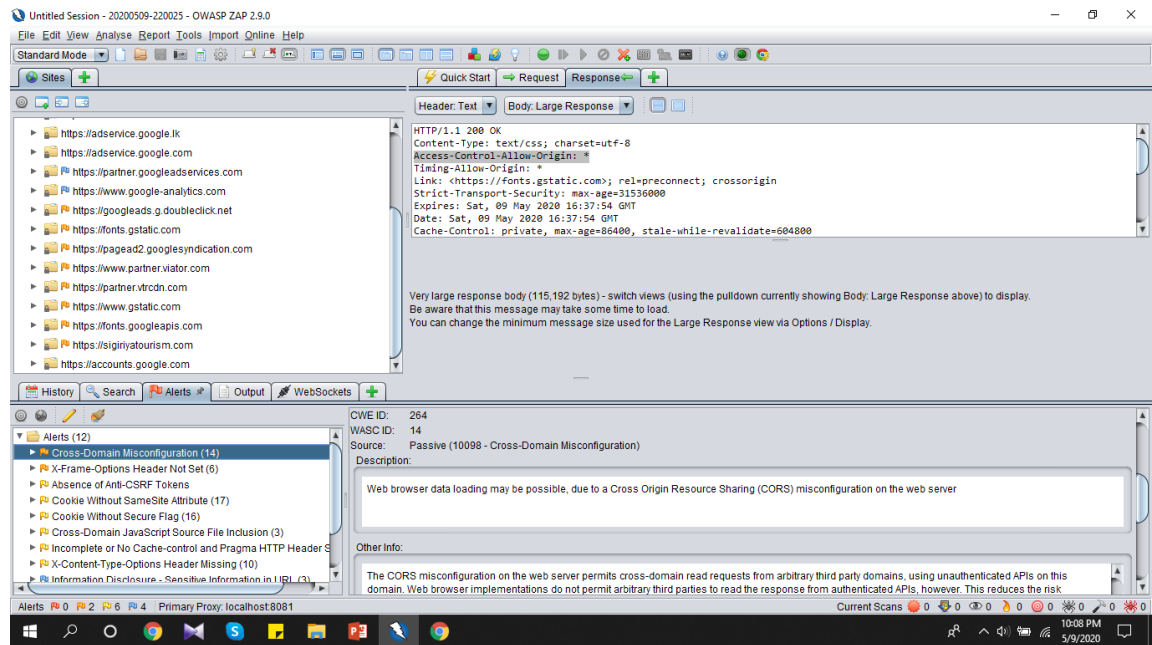


Fig 4.7 : after scan website

- We can get an audit report go to report and select a need report format. I select HTML report

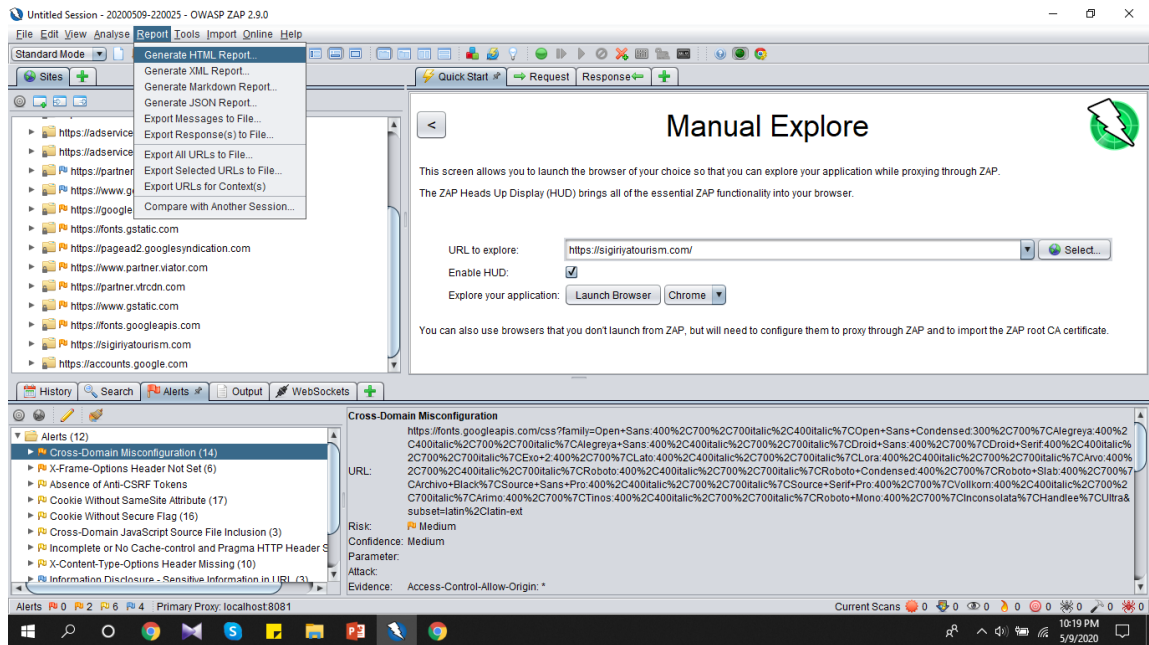


Fig 4.8 : generate report

- After a few seconds, generate a scan report and its open web browser. Firstly scan report has a summary of alerts. Its have a risk level and how much of alert in the web site. Include alert details, as one by one. We can show more information about this alert in the sections. Zap tools show 40 alerts and give a solution in scan report for every alert. No high-risk level attacks for the Sigiriya tourism web site. High-risk level attacks show a red color. Show medium risk level alert as orange color and yellow color show low-risk level alert. Blue color shows information alerts.

## ZAP Scanning Report

### Summary of Alerts

Risk Level	Number of Alerts
High	0
Medium	9
Low	15
Informational	16

### Alert Detail

Medium (Medium)	X-Frame-Options Header Not Set
Description	X-Frame-Options header is not included in the HTTP response to protect against 'ClickJacking' attacks.
URL	https://tpc.googlesyndication.com/sodar/sodar2/209/runner.html
Method	GET
Parameter	X-Frame-Options
Instances	1
Solution	Most modern Web browsers support the X-Frame-Options HTTP header. Ensure it's set on all web pages returned by your site (if you expect the page to be framed only by pages on your server (e.g. it's part of a FRAMESET) then you'll want to use SAMEORIGIN, otherwise if you never expect the page to be framed, you should use DENY. ALLOW-FROM allows specific websites to frame the web page in supported web browsers).
Reference	https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/X-Frame-Options
CWE Id	16
WASC Id	15
Source ID	3
Medium (Medium)	X-Frame-Options Header Not Set

Medium (Medium)	Cross-Domain Misconfiguration
Description	X-Frame-Options header is not included in the HTTP response to protect against 'ClickJacking' attacks.
URL	https://googleads.g.doubleclick.net/pagead/ads?client=ca-pub-5387217387406024&output=html&adsk=1812271804&adf=3025194257&imt=1589041964&plat=1%3A32776%2C2%3A16809992%2C8%3A32776%2C9%3A32776%2C16%3A8388608%2C17%3A32%2C24%3A32%2C25%3A32%2C30%3A1048576%2C32%3A32%2C40%3A32&gclid=2.2.0.0.2.0.0&format=0x0&url=https%3A%2F%2Fsigiriyaturism.com%2F&a=0&flash=0&pr=7&wgl=1&adid=NT&dt=15890419577208&bp=2&ad=12113&id=6627&shv=r20200506&cbv=r20190131&pt=9&saldr=aa&abx=1&cookie=ID%3D4dc15ec1c820e86e%3AT%3D1589042289%3AS%3DALN%3AMadaOV3wc4D2rK8IR8fW-37OLIB&crv=1&prev_fm=661x280&nrs=1&correlator=5789514039474&fm=20&pv=1&ga_vid=1425948114.1589041962&ga_sid=1589041963&ga_hid=1036498925&ga_fc=0&ia_g=0&icg=36711407627&dssz=29&mso=0&mso=0&u_tz=330&u_his=2&u_java=0&u_h=768&u_w=1366&u_ah=728&u_aw=1366&u_cd=24&u_nplug=3&u_nmime=4&adx=12245933&ady=12245933&blw=1017&bih=576&scr_x=0&scr_y=0&eid=21066085%2C410075106&oid=3&pvsid=2108255506584398&pem=364&rx=0&eae=2&fc=896&brdim=32000%2C-32000%2C-32000%2C-32000%2C1366%2C9%2C160%2C28%2C1034%2C576&vis=2&rsz=%7C%7C%7C&abi=NS&ku=9232&bc=31&fif=3&ucf=al3&fbb=1&dtid=6636
Method	GET
Parameter	X-Frame-Options
URL	https://googleads.g.doubleclick.net/pagead/html/20200506/r20190131/zrt_lookup.html
Method	GET
Parameter	X-Frame-Options
URL	https://googleads.g.doubleclick.net/pagead/ads?client=ca-pub-5387217387406024&output=html&h=280&slotname=4715588225&adsk=3936940963&adf=4048911295&w=661&fw=4&fwmh=100&imt=1589041963&rafmt=1&psa=0&gclid=2.2.0.0.2.2.0.0&format=661x280&url=https%3A%2F%2Fsigiriyaturism.com%2F&flash=0&fw=0&rpe=1&resp_fm=3&wgl=1&dt=1589041954677&bp=3025&bd=9069&id=8462&shv=r20200506&cbv=r20190131&pt=9&saldr=aa&abx=1&cookie=ID%3D4dc15ec1c820e86e%3AT%3D1589042289%3AS%3DALN%3AMadaOV3wc4D2rK8IR8fW-37OLIB&crv=1&correlator=5789514039474&fm=20&pv=28&ga_vid=1425948114.1589041962&ga_sid=1589041963&ga_hid=1036498925&ga_fc=0&ia_g=0&icg=36711407627&dssz=29&mso=0&u_tz=330&u_his=2&u_java=0&u_h=768&u_w=1366&u_ah=728&u_aw=1366&u_cd=24&u_nplug=3&u_nmime=4&adx=399&blw=1017&bih=576&scr_x=0&scr_y=0&eid=21066085%2C410075106&oid=3&pvsid=2108255506584398&pem=384&rx=0&eae=0&fc=896&brdim=32000%2C-32000%2C-32000%2C-32000%2C1366%2C9%2C160%2C28%2C1034%2C576&vis=2&rsz=%7C%7C%7C&abi=NS&px=0&ku=9360&bc=31&fif=3&ucf=al1&fbb=1&xpc=bKGPk2EHVY&p=https%3A%2F%2Fsigiriyaturism.com&dtid=6499
Method	GET
Parameter	X-Frame-Options
Instances	3
Solution	Most modern Web browsers support the X-Frame-Options HTTP header. Ensure it's set on all web pages returned by your site (if you expect the page to be framed only by pages on your server (e.g. it's part of a FRAMESET)) then you'll want to use SAMEORIGIN, otherwise if you never expect the page to be framed, you should use DENY. ALLOW-FROM allows specific websites to frame the web page in supported web browsers).
Reference	https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/X-Frame-Options
CVE ID	16
Source ID	3
Medium (Medium)	Cross-Domain Misconfiguration
Description	Web browser data loading may be possible, due to a Cross Origin Resource Sharing (CORS) misconfiguration on the web server
URL	https://fonts.gstatic.com/s/alegreayasans/v10/5aUit9_1phKLFgshYDvh6Vwt7V9dv21T.woff2
Method	GET
Evidence	Access-Control-Allow-Origin: *
URL	https://fonts.gstatic.com/s/alegreayasans/v10/5aUe9_1phKLFgshYDvh6Vwt7V9VBEhGIU9G.woff2
Method	GET
Evidence	Access-Control-Allow-Origin: *
URL	https://fonts.gstatic.com/s/alegreayasans/v10/5aUz9_1phKLFgshYDvh6Vwt7VpvtQ.woff2
Method	GET
Evidence	Access-Control-Allow-Origin: *
URL	https://fonts.gstatic.com/s/opensans/v17/mem8YaGs126MiZpBA-UFWZ0b.woff2
Method	GET
Evidence	Access-Control-Allow-Origin: *
URL	https://fonts.gstatic.com/s/alegreya/v13/4UaGrEBBsBhBjvfkSpa4/3Owp4.woff2
Method	GET
Evidence	Access-Control-Allow-Origin: *
URL	https://fonts.gstatic.com/s/alegreayasans/v10/5aUu9_1phKLFgshYDvh6Vwt5eFiqEp2lw.woff2
Method	GET
Evidence	Access-Control-Allow-Origin: *
Instances	6
Solution	Ensure that sensitive data is not available in an unauthenticated manner (using IP address white-listing, for instance). Configure the "Access-Control-Allow-Origin" HTTP header to a more restrictive set of domains, or remove all CORS headers entirely, to allow the web browser to enforce the Same Origin Policy (SOP) in a more restrictive manner.



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Medium (Medium)	Cross-Domain Misconfiguration
Description	Web browser data loading may be possible, due to a Cross Origin Resource Sharing (CORS) misconfiguration on the web server
URL	https://fonts.googleapis.com/css?family=Open+Sans:400%2C700%2C700italic%2C400italic%7COpen+Sans+Condensed:300%2C700%7CAlegreya:400%2C400italic%2C700%2C700italic%7CAlegreya+Sans:400%2C400italic%2C700%2C700italic%7CDroid+Sans:400%2C700%7CDroid+Serif:400%2C400italic%2C700%2C700italic%7CExo+2:400%2C700%7CLato:400%2C400italic%2C700%2C700italic%7CLora:400%2C400italic%2C700%2C700italic%7CArvo:400%2C700%2C400italic%2C700italic%7CRoboto:400%2C400italic%2C700%2C700italic%7CRoboto+Condensed:400%2C700%7CRoboto+Slab:400%2C700%7CArchivo+Black%7CSource+Sans+Pro:400%2C400italic%2C700%2C700italic%7CSource+Sans+Pro:400%2C700%7CVolkmorn:400%2C400italic%2C700%2C700italic%7CArimo:400%2C700%7CTinos:400%2C400italic%2C700%2C700italic%7CRoboto+Mono:400%2C700%7CInconsolata%7CHandlee%7CUltra&subset=latin%2Clatin-ext
Method	GET
Evidence	Access-Control-Allow-Origin: *
Instances	1
Solution	Ensure that sensitive data is not available in an unauthenticated manner (using IP address white-listing, for instance).
Other information	Configure the "Access-Control-Allow-Origin" HTTP header to a more restrictive set of domains, or remove all CORS headers entirely, to allow the web browser to enforce the Same Origin Policy (SOP) in a more restrictive manner. The CORS misconfiguration on the web server permits cross-domain read requests from arbitrary third party domains, using unauthenticated APIs on this domain. Web browser implementations do not permit arbitrary third parties to read the response from authenticated APIs, however. This reduces the risk somewhat. This misconfiguration could be used by an attacker to access data that is available in an unauthenticated manner, but which uses some other form of security, such as IP address white-listing.
Reference	http://www.hpenterprisesecurity.com/vulnecat/en/vulnecat/vb/html5_overly_permissive_cors_policy.html
CWE Id	264
WASC Id	14
Source ID	3
Medium (Medium)	X-Frame-Options Header Not Set
Description	X-Frame-Options header is not included in the HTTP response to protect against 'ClickJacking' attacks.
URL	https://sigiriyatourism.com/
Method	GET
Parameter	X-Frame-Options
Low (Medium)	Incomplete or No Cache-control and Pragma HTTP Header Set
Description	The cache-control and pragma HTTP header have not been set properly or are missing allowing the browser and proxies to cache content.
URL	https://tpc.google syndication.com/sodar/sodar2/209/runner.html
Method	GET
Parameter	Cache-Control
Evidence	public, max-age=31536000
Instances	1
Solution	Whenever possible ensure the cache-control HTTP header is set with no-cache, no-store, must-revalidate; and that the pragma HTTP header is set with no-cache.
Reference	https://www.owasp.org/index.php/Session_Management_Cheat_Sheet#Web_Content_Caching
CWE Id	525
WASC Id	13
Source ID	3
Low (Medium)	Incomplete or No Cache-control and Pragma HTTP Header Set
Description	The cache-control and pragma HTTP header have not been set properly or are missing allowing the browser and proxies to cache content.
URL	https://googleads.g.doubleclick.net/pagead/htmlr/20200506/20190131/zrt_lookup.html
Method	GET
Parameter	Cache-Control
Evidence	public, max-age=1209600
URL	https://googleads.g.doubleclick.net/pagead/ads?client=ca-pub-5387217387406024&output=html&h=280&slotname=4715588225&adsk=3936940963&adf=4048911295&w=661&fvrn=4&fvrnh=100&mt=1589041963&afmt=1&psa=0&guci=2.2.0.0.2.2.0.0&format=661x280&url=https://3A%2F%2Fsigiriyatourism.com%2F&flash=0&fwr=0&rpe=1&resp_fm=3&wgl=1&dt=1589041954677&bpp=3025&bdt=9069&idt=8462&shv=20200506&cbv=20190131&ptt=9&sald=aa&abxe=1&cookie=ID%3D4dc15ec1c820e86e%3AT%3D1589042289%3AS%3DALN%20MadaOV3wc4D2rK8IR8fjV-37OLIB&crv=1&correlator=5789514039474&fm=20&pv=2&ga_vid=1425948114.1589041962&ga_sid=1589041963&ga_hid=1036498925&ga_fc=0&tag=0&icsg=2351669259&dsdz=28&mdo=0&mso=0&u_tz=330&u_his=2&u_java=0&u_h=768&u_w=1366&u_ah=728&u_av=1366&u_cd=24&u_nplug=3&u_nmime=1&adx=10&ady=3998&bw=1017&bih=576&scr_x=0&scr_y=0&eid=21066085%2C410075106&oid=3&pvsid=210825506584398&pem=384&rx=0&eae=0&fc=896&brdim=32000%2C-32000%2C-32000%2C1366%2C0%2C160%2C28%2C1034%2C576&vis=2&rsz=0%7C%7CoeEr%7C&abl=NS&pf=0&fu=9360&bc=31&f=1&uci=al1&fsb=1&xpc=bKGPK2EHVyp=https://3A/sigiriyatourism.com&dt=8499
Low (Medium)	Cookie Without SameSite Attribute
Description	A cookie has been set with an invalid SameSite attribute value, which means that the cookie can be sent as a result of a 'cross-site' request. The SameSite attribute is an effective counter measure to cross-site request forgery, cross-site script inclusion, and timing attacks.
URL	https://googleads.g.doubleclick.net/pagead/ads?client=ca-pub-5387217387406024&output=html&adsk=1812271804&adf=3025194257&mt=1589041964&plat=1%3A32776%2C2%3A16809992%2C8%3A32776%2C9%3A32776%2C16%3A8388608%2C17%3A32%2C24%3A32%2C25%3A32%2C30%3A1048576%2C32%3A32%2C40%3A32&guci=2.2.0.0.2.2.0.0&format=0x0&url=https://3A%2F%2Fsigiriyatourism.com%2F&a=0&flash=0&pra=7&wgl=1&adsid=NT&dt=1589041957720&bpp=2&bdt=12113&idt=6627&shv=20200506&cbv=20190131&ptt=9&sald=aa&abxe=1&cookie=ID%3D4dc15ec1c820e86e%3AT%3D1589042289%3AS%3DALN%20MadaOV3wc4D2rK8IR8fjV-37OLIB&crv=1&correlator=5789514039474&fm=20&pv=1&ga_vid=1425948114.1589041962&ga_sid=1589041963&ga_hid=1036498925&ga_fc=0&tag=0&icsg=36711407627&dsdz=29&mdo=0&mso=0&u_tz=330&u_his=2&u_java=0&u_h=768&u_w=1366&u_ah=728&u_av=1366&u_cd=24&u_nplug=3&u_nmime=4&adx=12245933&ady=12245933&blw=1017&bih=576&scr_x=0&scr_y=0&eid=21066085%2C410075106&oid=3&pvsid=210825506584398&pem=384&rx=0&eae=2&fc=896&brdim=32000%2C-32000%2C-32000%2C1366%2C0%2C160%2C28%2C1034%2C576&vis=2&rsz=%7C%7Cs%7C&abl=NS&fu=9232&bc=31&f=1&uci=al3&fsb=1&dt=6636
Method	GET
Parameter	IDE
Evidence	Set-Cookie: IDE
Instances	1
Solution	Ensure that the SameSite attribute is set to either 'lax' or ideally 'strict' for all cookies.
Reference	https://tools.ietf.org/html/draft-ietf-httpbis-cookie-same-site
CWE Id	16
WASC Id	13
Source ID	3
Low (Medium)	Incomplete or No Cache-control and Pragma HTTP Header Set
Description	The cache-control and pragma HTTP header have not been set properly or are missing allowing the browser and proxies to cache content.
URL	https://pagead2.google syndication.com/getconfig/sodar?sv=200&id=gd&tv=20200506&st=env
Method	GET
Parameter	Cache-Control
Evidence	private

Low (Medium)	Incomplete or No Cache-control and Pragma HTTP Header Set
Description	The cache-control and pragma HTTP header have not been set properly or are missing allowing the browser and proxies to cache content.
URL	https://www.partner.viator.com/widgets/custom.jspa?callback=document.viatorWidgetDiv.Callback_2c409202&setLocale=en&PUID=18531&destinationID=0&numProducts=1&title=1%20Adult%20-%202020.00%20USD&width=340&horizontal=false&showThumbs=true&widgetAction=custom&customProductCodes=1010_17652P24&SUBPUID=&linkNewWindow=true
Method	GET
Parameter	Cache-Control
URL	https://www.partner.viator.com/css/lib/niftycorners.css
Method	GET
Parameter	Cache-Control
Evidence	max-age=2592000
URL	https://www.partner.viator.com/widgets/custom.jspa?callback=document.viatorWidgetDiv.Callback_afca7497&setLocale=en&PUID=18531&destinationID=0&numProducts=1&title=1%20Adult%20-%202020.00%20USD&width=340&horizontal=false&showThumbs=true&widgetAction=custom&customProductCodes=1010_87020P5&SUBPUID=&linkNewWindow=true
Method	GET
Parameter	Cache-Control
URL	https://www.partner.viator.com/modules/widgets/css/widgets.css
Method	GET
Parameter	Cache-Control
Evidence	max-age=2592000
Instances	4
Solution	Whenever possible ensure the cache-control HTTP header is set with no-cache, no-store, must-revalidate; and that the pragma HTTP header is set with no-cache.
Reference	https://www.owasp.org/index.php/Session_Management_Cheat_Sheet#Web_Content_Caching
CWE Id	525
WASC Id	13
Source ID	3

Low (Medium)	Cookie Without Secure Flag
Description	A cookie has been set without the secure flag, which means that the cookie can be accessed via unencrypted connections.
URL	https://www.partner.viator.com/widgets/custom.jspa?callback=document.viatorWidgetDiv.Callback_2c409202&setLocale=en&PUID=18531&destinationID=0&numProducts=1&title=1%20Adult%20-%202020.00%20USD&width=340&horizontal=false&showThumbs=true&widgetAction=custom&customProductCodes=1010_17652P24&SUBPUID=&linkNewWindow=true
Method	GET
Parameter	attribution
Evidence	Set-Cookie: attribution
URL	https://www.partner.viator.com/widgets/custom.jspa?callback=document.viatorWidgetDiv.Callback_2c409202&setLocale=en&PUID=18531&destinationID=0&numProducts=1&title=1%20Adult%20-%202020.00%20USD&width=340&horizontal=false&showThumbs=true&widgetAction=custom&customProductCodes=1010_17652P24&SUBPUID=&linkNewWindow=true
Method	GET
Parameter	AID
Evidence	Set-Cookie: AID
URL	https://www.partner.viator.com/widgets/custom.jspa?callback=document.viatorWidgetDiv.Callback_2c409202&setLocale=en&PUID=18531&destinationID=0&numProducts=1&title=1%20Adult%20-%202020.00%20USD&width=340&horizontal=false&showThumbs=true&widgetAction=custom&customProductCodes=1010_17652P24&SUBPUID=&linkNewWindow=true
Method	GET
Parameter	aid
Evidence	Se
URL	https://www.partner.viator.com/widgets/custom.jspa?callback=document.viatorWidgetDiv.Callback_2c409202&setLocale=en&PUID=18531&destinationID=0&numProducts=1&title=1%20Adult%20-%202020.00%20USD&width=340&horizontal=false&showThumbs=true&widgetAction=custom&customProductCodes=1010_17652P24&SUBPUID=&linkNewWindow=true
Method	GET
Parameter	ORION_SESSION_18531_REQ
Evidence	Set-Cookie: ORION_SESSION_18531_REQ
URL	https://www.partner.viator.com/widgets/custom.jspa?callback=document.viatorWidgetDiv.Callback_afca7497&setLocale=en&PUID=18531&destinationID=0&numProducts=1&title=1%20Adult%20-%202020.00%20USD&width=340&horizontal=false&showThumbs=true&widgetAction=custom&customProductCodes=1010_87020P5&SUBPUID=&linkNewWindow=true

Low (Medium)	Cookie Without SameSite Attribute
Description	A cookie has been set without the SameSite attribute, which means that the cookie can be sent as a result of a 'cross-site' request. The SameSite attribute is an effective counter measure to cross-site request forgery, cross-site script inclusion, and timing attacks.
URL	https://www.partner.viator.com/widgets/custom.jspa?callback=document.viatorWidgetDiv.Callback_2c409202&setLocale=en&PUID=18531&destinationID=0&numProducts=1&title=1%20Adult%20-%202020.00%20USD&width=340&horizontal=false&showThumbs=true&widgetAction=custom&customProductCodes=1010_17652P24&SUBPUID=&linkNewWindow=true
Method	GET
Parameter	x-viator-tapersistentcookie
Evidence	Set-Cookie: x-viator-tapersistentcookie
URL	https://www.partner.viator.com/widgets/custom.jspa?callback=document.viatorWidgetDiv.Callback_afca7497&setLocale=en&PUID=18531&destinationID=0&numProducts=1&title=1%20Adult%20-%202020.00%20USD&width=340&horizontal=false&showThumbs=true&widgetAction=custom&customProductCodes=1010_87020P5&SUBPUID=&linkNewWindow=true
Method	GET
Parameter	ORION_SESSION_18531
Evidence	Set-Cookie: ORION_SESSION_18531
URL	https://www.partner.viator.com/widgets/custom.jspa?callback=document.viatorWidgetDiv.Callback_afca7497&setLocale=en&PUID=18531&destinationID=0&numProducts=1&title=1%20Adult%20-%202020.00%20USD&width=340&horizontal=false&showThumbs=true&widgetAction=custom&customProductCodes=1010_87020P5&SUBPUID=&linkNewWindow=true
Method	GET
Parameter	JSESSIONID
Evidence	Set-Cookie: JSESSIONID
URL	https://www.partner.viator.com/widgets/custom.jspa?callback=document.viatorWidgetDiv.Callback_afca7497&setLocale=en&PUID=18531&destinationID=0&numProducts=1&title=1%20Adult%20-%202020.00%20USD&width=340&horizontal=false&showThumbs=true&widgetAction=custom&customProductCodes=1010_87020P5&SUBPUID=&linkNewWindow=true
Method	GET
Parameter	VSI
Evidence	Set-Cookie: VSI
	https://www.partner.viator.com/widgets/custom.jspa?

<b>Low (Medium)</b>		<b>X-Content-Type-Options Header Missing</b>
Description	The Anti-MIME-Sniffing header X-Content-Type-Options was not set to 'nosniff'. This allows older versions of Internet Explorer and Chrome to perform MIME-sniffing on the response body, potentially causing the response body to be interpreted and displayed as a content type other than the declared content type. Current (early 2014) and legacy versions of Firefox will use the declared content type (if one is set), rather than performing MIME-sniffing.	
URL	<a href="https://www.partner.viator.com/css/lib/niftycorners.css">https://www.partner.viator.com/css/lib/niftycorners.css</a>	
Method	GET	
Parameter	X-Content-Type-Options	
URL	<a href="https://www.partner.viator.com/widgets/custom.js?a?callback=document.viatorWidgetDiv.Callback_afca7497&amp;setLocale=en&amp;PUID=18531&amp;destinationID=0&amp;numProducts=1&amp;title=%201%20Adult%20-%2095.00%20USD&amp;width=340&amp;horizontal=false&amp;showThumbs=true&amp;widgetAction=custom&amp;customProductCodes=1010_87020P5&amp;SUBPUID=&amp;linkNewWindow=true">https://www.partner.viator.com/widgets/custom.js?a?callback=document.viatorWidgetDiv.Callback_afca7497&amp;setLocale=en&amp;PUID=18531&amp;destinationID=0&amp;numProducts=1&amp;title=%201%20Adult%20-%2095.00%20USD&amp;width=340&amp;horizontal=false&amp;showThumbs=true&amp;widgetAction=custom&amp;customProductCodes=1010_87020P5&amp;SUBPUID=&amp;linkNewWindow=true</a>	
Method	GET	
Parameter	X-Content-Type-Options	
URL	<a href="https://www.partner.viator.com/modules/widgets/js/initWidget.js?v=2018.10.17.2">https://www.partner.viator.com/modules/widgets/js/initWidget.js?v=2018.10.17.2</a>	
Method	GET	
Parameter	X-Content-Type-Options	
URL	<a href="https://www.partner.viator.com/modules/widgets/css/widgets.css">https://www.partner.viator.com/modules/widgets/css/widgets.css</a>	
Method	GET	
Parameter	X-Content-Type-Options	
URL	<a href="https://www.partner.viator.com/widgets/custom.js?a?callback=document.viatorWidgetDiv.Callback_2c409202&amp;setLocale=en&amp;PUID=18531&amp;destinationID=0&amp;numProducts=1&amp;title=1%20Adult%20-%20220.00%20USD&amp;width=340&amp;horizontal=false&amp;showThumbs=true&amp;widgetAction=custom&amp;customProductCodes=1010_17652P24&amp;SUBPUID=&amp;linkNewWindow=true">https://www.partner.viator.com/widgets/custom.js?a?callback=document.viatorWidgetDiv.Callback_2c409202&amp;setLocale=en&amp;PUID=18531&amp;destinationID=0&amp;numProducts=1&amp;title=1%20Adult%20-%20220.00%20USD&amp;width=340&amp;horizontal=false&amp;showThumbs=true&amp;widgetAction=custom&amp;customProductCodes=1010_17652P24&amp;SUBPUID=&amp;linkNewWindow=true</a>	
Method	GET	
Parameter	X-Content-Type-Options	
Instances	5	
Solution	Ensure that the application/web server sets the Content-Type header appropriately, and that it sets the X-Content-Type-Options header to 'nosniff' for all web pages. If possible, ensure that the end user uses a standards-compliant and modern web browser that does not perform MIME-sniffing at all, or that can be directed by the web application/web server to not perform MIME-sniffing.	
<b>Low (Medium)</b>		<b>X-Content-Type-Options Header Missing</b>
Description	The Anti-MIME-Sniffing header X-Content-Type-Options was not set to 'nosniff'. This allows older versions of Internet Explorer and Chrome to perform MIME-sniffing on the response body, potentially causing the response body to be interpreted and displayed as a content type other than the declared content type. Current (early 2014) and legacy versions of Firefox will use the declared content type (if one is set), rather than performing MIME-sniffing.	
URL	<a href="https://partner.vtrcdn.com/modules/widgets/js/initWidget.js?v=2018.10.17.2">https://partner.vtrcdn.com/modules/widgets/js/initWidget.js?v=2018.10.17.2</a>	
Method	GET	
Parameter	X-Content-Type-Options	
Instances	1	
Solution	Ensure that the application/web server sets the Content-Type header appropriately, and that it sets the X-Content-Type-Options header to 'nosniff' for all web pages. If possible, ensure that the end user uses a standards-compliant and modern web browser that does not perform MIME-sniffing at all, or that can be directed by the web application/web server to not perform MIME-sniffing.	
Other information	This issue still applies to error type pages (401, 403, 500, etc.) as those pages are often still affected by injection issues, in which case there is still concern for browsers sniffing pages away from their actual content type. At "High" threshold this scanner will not alert on client or server error responses.	
Reference	<a href="http://msdn.microsoft.com/en-us/library/ie/gg622941%28v=vs.85%29.aspx">http://msdn.microsoft.com/en-us/library/ie/gg622941%28v=vs.85%29.aspx</a> <a href="https://www.owasp.org/index.php/List_of_useful_HTTP_headers">https://www.owasp.org/index.php/List_of_useful_HTTP_headers</a>	
CWE Id	16	
WASC Id	15	
Source ID	3	
<b>Low (Medium)</b>		<b>Incomplete or No Cache-control and Pragma HTTP Header Set</b>
Description	The cache-control and pragma HTTP header have not been set properly or are missing allowing the browser and proxies to cache content.	
URL	<a href="https://www.gstatic.com/chrome/intelligence/assist/ranker/models/translate/2017/03/translate_ranker_model_20170329.pb.bin">https://www.gstatic.com/chrome/intelligence/assist/ranker/models/translate/2017/03/translate_ranker_model_20170329.pb.bin</a>	
Method	GET	
Parameter	Cache-Control	
Evidence	public, max-age=31536000	
<b>Low (Medium)</b>		<b>Incomplete or No Cache-control and Pragma HTTP Header Set</b>
Description	The cache-control and pragma HTTP header have not been set properly or are missing allowing the browser and proxies to cache content.	
URL	<a href="https://fonts.googleapis.com/css?family=Open+Sans:400%2C700%2C700italic%2C400italic%7COpen+Sans+Condensed:300%2C700%7CAlegreya:400%2C400italic%2C700%2C700italic%7CAlegreya+Sans:400%2C400italic%2C700%2C700italic%7CDroid+Sans:400%2C700%7CDroid+Serif:400%2C400italic%2C700%2C700italic%7CExo+2:400%2C700%7CLato:400%2C400italic%2C700%2C700italic%7CLora:400%2C400italic%2C700%2C700italic%7CArvo:400%2C700%2C400italic%2C700italic%7CRoboto:400%2C400italic%2C700%2C700italic%7CRoboto+Condensed:400%2C700%7CRoboto+Slab:400%2C700%7CArchivo+Black%7CSource+Sans+Pro:400%2C400italic%2C700%2C700italic%7CSource+Sans+Pro:400%2C700%7CVolkorn:400%2C400italic%2C700%2C700italic%7CArimo:400%2C700%7CTinos:400%2C400italic%2C700%2C700italic%7CRoboto+Mono:400%2C700%7CInconsolata%7CHandlee%7CUltra&amp;subset=latin%2Clatin-ext">https://fonts.googleapis.com/css?family=Open+Sans:400%2C700%2C700italic%2C400italic%7COpen+Sans+Condensed:300%2C700%7CAlegreya:400%2C400italic%2C700%2C700italic%7CAlegreya+Sans:400%2C400italic%2C700%2C700italic%7CDroid+Sans:400%2C700%7CDroid+Serif:400%2C400italic%2C700%2C700italic%7CExo+2:400%2C700%7CLato:400%2C400italic%2C700%2C700italic%7CLora:400%2C400italic%2C700%2C700italic%7CArvo:400%2C700%2C400italic%2C700italic%7CRoboto:400%2C400italic%2C700%2C700italic%7CRoboto+Condensed:400%2C700%7CRoboto+Slab:400%2C700%7CArchivo+Black%7CSource+Sans+Pro:400%2C400italic%2C700%2C700italic%7CSource+Sans+Pro:400%2C700%7CVolkorn:400%2C400italic%2C700%2C700italic%7CArimo:400%2C700%7CTinos:400%2C400italic%2C700%2C700italic%7CRoboto+Mono:400%2C700%7CInconsolata%7CHandlee%7CUltra&amp;subset=latin%2Clatin-ext</a>	
Method	GET	
Parameter	Cache-Control	
Evidence	private, max-age=86400, stale-while-revalidate=604800	
Instances	1	
Solution	Whenever possible ensure the cache-control HTTP header is set with no-cache, no-store, must-revalidate; and that the pragma HTTP header is set with no-cache.	
Reference	<a href="https://www.owasp.org/index.php/Session_Management_Cheat_Sheet#Web_Content_Caching">https://www.owasp.org/index.php/Session_Management_Cheat_Sheet#Web_Content_Caching</a>	
CWE Id	525	
WASC Id	13	
Source ID	3	
<b>Low (Medium)</b>		<b>X-Content-Type-Options Header Missing</b>
Description	The Anti-MIME-Sniffing header X-Content-Type-Options was not set to 'nosniff'. This allows older versions of Internet Explorer and Chrome to perform MIME-sniffing on the response body, potentially causing the response body to be interpreted and displayed as a content type other than the declared content type. Current (early 2014) and legacy versions of Firefox will use the declared content type (if one is set), rather than performing MIME-sniffing.	
URL	<a href="https://sigiriyatourism.com/wp-content/cache/autoptimize/css/autoptimize_15ac691e8488c14c820b02c7a328b688.css">https://sigiriyatourism.com/wp-content/cache/autoptimize/css/autoptimize_15ac691e8488c14c820b02c7a328b688.css</a>	
Method	GET	
Parameter	X-Content-Type-Options	
URL	<a href="https://sigiriyatourism.com/wp-includes/js/jquery/jquery.js?ver=1.12.4-wp">https://sigiriyatourism.com/wp-includes/js/jquery/jquery.js?ver=1.12.4-wp</a>	
Method	GET	

Low (Medium)	Cross-Domain JavaScript Source File Inclusion
Description	The page includes one or more script files from a third-party domain.
URL	https://sigiriyatourism.com/
Method	GET
Parameter	//pagead2.googlesyndication.com/pagead/js/adsbygoogle.js
Evidence	<script async src="//pagead2.googlesyndication.com/pagead/js/adsbygoogle.js"></script>
URL	https://sigiriyatourism.com/
Method	GET
Parameter	//partner.vtrcdn.com/modules/widgets/js/initWidget.js?v=2018.10.17.2
Evidence	<script type="text/javascript" src="//partner.vtrcdn.com/modules/widgets/js/initWidget.js?v=2018.10.17.2"></script>
URL	https://sigiriyatourism.com/
Method	GET
Parameter	https://www.partner.viator.com/modules/widgets/js/initWidget.js?v=2018.10.17.2
Evidence	<script type="text/javascript" src="https://www.partner.viator.com/modules/widgets/js/initWidget.js?v=2018.10.17.2"></script>
Instances	3
Solution	Ensure JavaScript source files are loaded from only trusted sources, and the sources can't be controlled by end users of the application.
Reference	
CWE Id	829
WASC Id	15
Source ID	3
Low (Medium)	Incomplete or No Cache-control and Pragma HTTP Header Set
Description	The cache-control and pragma HTTP header have not been set properly or are missing allowing the browser and proxies to cache content.
URL	https://sigiriyatourism.com/wp-content/cache/autoptimiz/css/autoptimiz_15ac691e0488c14c020b02c7a328b688.css
Method	GFT
URL	https://sigiriyatourism.com/
Method	GET
Parameter	Cache-Control
Evidence	max-age=3, must-revalidate
Instances	2
Solution	Whenever possible ensure the cache-control HTTP header is set with no-cache, no-store, must-revalidate; and that the pragma HTTP header is set with no-cache.
Reference	https://www.owasp.org/index.php/Session_Management_Cheat_Sheet#Web_Content_Caching
CWE Id	525
WASC Id	13
Source ID	3
Low (Medium)	Absence of Anti-CSRF Tokens
Description	<p>No Anti-CSRF tokens were found in a HTML submission form.</p> <p>A cross-site request forgery is an attack that involves forcing a victim to send an HTTP request to a target destination without their knowledge or intent in order to perform an action as the victim. The underlying cause is application functionality using predictable URL/form actions in a repeatable way. The nature of the attack is that CSRF exploits the trust that a web site has for a user. By contrast, cross-site scripting (XSS) exploits the trust that a user has for a web site. Like XSS, CSRF attacks are not necessarily cross-site, but they can be. Cross-site request forgery is also known as CSRF, XSRF, one-click attack, session riding, confused deputy, and sea surf.</p> <p>CSRF attacks are effective in a number of situations, including:</p> <ul style="list-style-type: none"> <li>* The victim has an active session on the target site.</li> <li>* The victim is authenticated via HTTP auth on the target site.</li> <li>* The victim is on the same local network as the target site.</li> </ul> <p>CSRF has primarily been used to perform an action against a target site using the victim's privileges, but recent techniques have been discovered to disclose information by gaining access to the response. The risk of information disclosure is dramatically increased when the target site is vulnerable to XSS, because XSS can be used as a platform for CSRF, allowing the attack to operate within the bounds of the same-origin policy.</p>
URL	https://sigiriyatourism.com/
Method	GET
Parameter	
Instances	1
Solution	Do not pass sensitive information in URIs.
Other information	The URL appears to contain credit card information.
Reference	
CWE Id	200
WASC Id	13
Source ID	3
Informational (Medium)	Information Disclosure - Sensitive Information in URL
Description	The request appeared to contain sensitive information leaked in the URL. This can violate PCI and most organizational compliance policies. You can configure the list of strings for this check to add or remove values specific to your environment.
URL	https://partner.googleadservices.com/gampad/cookie.js?domain=sigiriyatourism.com&callback=_gfp_s_&client=ca-pub-5387217387406024
Method	GET
Parameter	client
Evidence	ca-pub-5387217387406024
Instances	1
Solution	Do not pass sensitive information in URIs.
Other information	The URL appears to contain credit card information.
Reference	
CWE Id	200
WASC Id	13
Source ID	3
Informational (Medium)	Information Disclosure - Sensitive Information in URL
Description	The request appeared to contain sensitive information leaked in the URL. This can violate PCI and most organizational compliance policies. You can configure the list of strings for this check to add or remove values specific to your environment.
URL	https://googleads.g.doubleclick.net/pagead/ads?client=ca-pub-5387217387406024&output=html&adk=1812271804&ad=3025194257&imt=1589041964&plat=1%3A32776%2C2%3A16809992%2C8%3A32776%2C9%3A32776%2C16%3A8388608%2C17%3A32%2C24%3A32%2C25%3A32%2C30%3A1048576%2C32%3A32%2C40%3A32&pu=2.2.0.0.0&format=0&url=https%3A%2F%2Fsigiriyatourism.com%2F&e=0&flash=0&pr=7&vpl=1&adid=NT&dt=15890419677208&bp=2&adt=12113&id=6627&shv=20200506&cbv=20190131&pt=9&salid=aa&abx=1&cookie=ID%3D4dc15ec1c820e86e%3AT%3D1589042289%3AS%3DALN1_MadaOV3wc4D2rK8I8RjW-37OLIBA&cv=1&prev_fm=661x280&nras=1&correlator=5789514039474&fm=20&pv=1&ga_vid=1425948114.1589041962&ga_sid=1589041963&ga_hid=1036498925&ga_fc=0&ia=0&icsg=36711407627&dsz=29&mdo=0&mso=0&u_tz=330&u_his=2&u_java=0&u_h=768&u_w=1366&u_ah=728&u_au=1366&u_cd=24&u_nplug=3&u_nmime=4&adx=12245933&ady=12245933&bhv=1017&bh=576&scr_y=0&scr_y=0&ad=21060005%2C410075106&oid=38&psid=2106255005043908&perm=304&nx=0&ea=2&lc=896&brdim=32000%2C-32000%2C-32000%2C1366%2C0%2C160%2C28%2C1034%2C576&vis=2&sz=7%7C%7C%7C&abi=NS&fu=9232&bc=31&it=3&uci=al3&fb=1&did=6636
Method	GET
Parameter	client





Informational (Low)	Timestamp Disclosure - Unix
Description	A timestamp was disclosed by the application/web server - Unix
URL	https://partner.googleadservices.com/gampad/cookie.js?domain=sigiriyatourism.com&callback=_gfp_s_&client=ca-pub-5387217387406024
Method	GET
Evidence	1589042289
URL	https://partner.googleadservices.com/gampad/cookie.js?domain=sigiriyatourism.com&callback=_gfp_s_&client=ca-pub-5387217387406024
Method	GET
Evidence	1652114289
Instances	2
Solution	Manually confirm that the timestamp data is not sensitive, and that the data cannot be aggregated to disclose exploitable patterns.
Other information	1589042289, which evaluates to: 2020-05-09 22:08:09
Reference	https://www.owasp.org/index.php/Top_10_2013-A6-Sensitive_Data_Exposure http://projects.webappsec.org/w/page/13246936/Information%20Leakage
CWE Id	200
WASC Id	13
Source ID	3

Informational (Low)	Timestamp Disclosure - Unix
Description	A timestamp was disclosed by the application/web server - Unix
URL	https://www.google-analytics.com/analytics.js
Method	GET
Evidence	2147483647
URL	https://www.google-analytics.com/analytics.js
Method	GET
Evidence	2601070400

Informational (Low)	Information Disclosure - Suspicious Comments
Description	The response appears to contain suspicious comments which may help an attacker. Note: Matches made within script blocks or files are against the entire content not only comments.
URL	https://www.google-analytics.com/analytics.js
Method	GET
Instances	1
Solution	Remove all comments that return information that may help an attacker and fix any underlying problems they refer to.
Other information	<p>The following comment/snippet was identified via the pattern: 'bQUERY'b</p> <pre>b)) a=b;break;case "protocol":a=c;break;case "host":a=a.hostname.replace(y,"").toLowerCase();break;case "port":a=String(Number(a.port))["http"=="c?80:"https"=="c?443:""]);break;case "path":a=pathname[a.hostname][x],a="/"==a.pathname.substr(0,1)?a.pathname:"/"+a.pathname;a=a.split("/") a:if(b=[])c=a[a.length-1].Array.prototype.indexOf(b=b.indexOf(c),b="number"==typeof b?b-1,else[for(var d=0;d&lt;b.length;d++)if(b[d]==c){b=d;break a}b=-1]?0&lt;c+b&amp;&amp;(a[a.length-1]==c):a=a.join("/") break;case "query":a=a.search.replace("?",</pre> <p>The following comment/snippet was identified via the pattern: 'bQUERY'b</p> <pre>3988292384.d&gt;&gt;&gt;1.b[c]=d)] b=b-4294967295.for(c=0;c&lt;a.length;c++){b=b&gt;&gt;&gt;8*[(b^a.charCodeAt(c))&amp;255].return((b^1)&gt;&gt;&gt;0).toString(36),ca=function(a){return function(b){var c=B(c.location.href),d=c.search.replace("?", "").a={var F=d.split("&amp;");for(var e=0;e&lt;f.length;e++){var g=f[e].split("=") f["_gl"===decodeURIComponent(g[0]).replace(/\+/g,"")}(f=g.slice(1)).join("=") break a} f=void 0)b.query=T(f[""]) f=A(c,"fragment"),e=f.match(Q("_gl")) b.fragment=T(e&amp;&amp;e[3]) f= f &amp;&amp;a&amp;&amp;(c,d,f)};</pre> <p>The following comment/snippet was identified via the pattern: 'bQUERY'b</p> <pre>var J=function(a){try{for(var b=100,a&amp;&amp;0&lt;b.)if(a.href&amp;&amp;a.nodeName.match(/^a(?:?rea)?\$/i)){var c=a;break a} a=a.parentNode.b =c null if(c){var d=c.protocol,"http:" =d&amp;&amp;"https:" =d W(c,c.hostname)) catch(f) K=function(a){try{if(a.action){var b=A(B(a.action),"host").W(a.b)) catch(c)} n["google_tag_data.gBridge.auto"].function(a,b,c,d){N() c="fragment"===c?2:1,a=[callbac,a.domains.b,fragment,2===c,placement,c,forms,1d,sameHost,1f],L() decorators.push(a)) n["google_tag_data.gBridge.decorate"].function(a,b,c){a=S(a).return Z("gl",a,b,l(c)) n["google_tag_data.gBridge.generate"].S() n["google_tag_data.gBridge.get"].function(a,b){var c=ca(l(b),b=L(),b.data){b.data=query(),fragment(),c(b.data)} c= f f(b=b.data)p(c,b.query,a&amp;&amp;p(c,b.fragment).return c)} }(window);</pre> <p>The following comment/snippet was identified via the pattern: 'bDB'b</p> <pre>Ya.prototype.set=function(a,b,c){if(a)if("object"===typeof a)for(var d in a){a.hasOwnProperty(d)&amp;&amp;ab(this.d,a[d],c).else ab(this,a,b,c)} var ab=function(a,b,c,d){if(void 0!=c)switch(b){case Na:wb.test(c) var e=\$a(b).e&amp;&amp;e.o?e.o(a,b,c,d).a.data.set(b,c,d) var ue=new ee,v=[] bb=function(a,b,c,d,e){this.name=a,this.F=b,this.Z=d,this.o=e,this.defaultValue=c,\$a=function(a){var b=ue.get(a),f(lb)for(var c=0;c&lt;ve.length;c++){var d=ve[c],e=d[0].exec(a),f(e)(b=d[1],e).ue.set(b,name,b).break} return b} yc=function(a){var b=ue.map(function(c,d){d.F=e&amp;&amp;(b=d)}).return b&amp;&amp;b.name} S=function(a,b,c,d,e){a=new bb(a,b,c,d,e).ue.set(a.name,a).return a.name} cb=function(a,b){ve.push(new RegExp(""+a+"\$").b)} T=function(a,b,c){return S(a,b,c,void 0,db)} db=function(j){var hb=T("apiVersion"),y(jb=T("clientIdVersion"),y),S("anonymous"),alp"/var jfb=S("adSenseId","a"),Va=S("hitType","t"),la=S("hitCallback"),Ra=S("hitPayload"),Si="nonInteraction","ni"),Si("currencyCode","cu"),Si("dataSource","ds"),var Vd=S("useBeacon",void 0,1),fa=S("transport"),S("sessionControl","sc"),S("sessionGroup","sg"),S("queueTime","qt"),var Ac=S("_s","s"),S("screenName","cd"),var</pre>

Informational (Low)	Timestamp Disclosure - Unix
Description	A timestamp was disclosed by the application/web server - Unix
URL	https://googleads.g.doubleclick.net/pagead/ads?client=ca-pub-5387217387406024&output=html&adsk=1812271804&ad=3025194257&mt=1589041964&plat=1%3A32776%2C2%3A16809992%2C8%3A32776%2C9%3A32776%2C16%3A8388608%2C17%3A32%2C24%3A32%2C25%3A32%2C30%3A1048576%2C32%3A32%2C40%3A32&guc=2.2.0.0.2.2.0.0&format=0x0&url=https%3A%2F%2Fsigiriyatourism.com%2F&e=a=0&flash=0&pra=7&wgl=1&adsid=NT&dt=1589041957720&bpp=2&bd=12113&id=6627&shv=r20200506&cbv=r20190131&ptt=9&saldr=aa&abxe=1&cookie=ID%3D4dc15ec1c820e86e%3AT%3D1589042289%3AS%3DALNl_MadaOV3wc4D2rk8J8fW-370LIBA&cnv=1&prev_fm=661x280&nras=1&correlator=5789514039474&frm=20&pv=1&ga_vid=1425948114.1589041962&ga_sid=1589041963&ga_hid=1036498925&ga_fc=0&ia_g=0&icsg=36711407627&dsz=29&mso=0&ms=0&u_tz=330&u_his=2&u_java=0&u_h=768&u_w=1366&u_ah=728&u_au=1366&u_cd=24&u_nplug=3&u_nmime=4&adx=-12245933&ady=-12245933&biw=1017&bih=576&scr_x=0&scr_y=0&eid=21066085%2C410075106&oid=3&psvid=2108255065684398&pm=384&n=0&eee=2&fc=096&brdim=32000%2C-32000%2C-32000%2C-32000%2C1366%2C0%2C160%2C28%2C1034%2C576&vis=2&rsz=%7C%7C%7C8&abi=NS&fu=9232&bc=31&ifi=3&uci=a13&fsb=1&dt=6636
Method	GET
Evidence	30000001
URL	https://googleads.g.doubleclick.net/pagead/ads?client=ca-pub-5387217387406024&output=html&adsk=1812271804&ad=3025194257&mt=1589041964&plat=1%3A32776%2C2%3A16809992%2C8%3A32776%2C9%3A32776%2C16%3A8388608%2C17%3A32%2C24%3A32%2C25%3A32%2C30%3A1048576%2C32%3A32%2C40%3A32&guc=2.2.0.0.2.2.0.0&format=0x0&url=https%3A%2F%2Fsigiriyatourism.com%2F&e=a=0&flash=0&pra=7&wgl=1&adsid=NT&dt=1589041957720&bpp=2&bd=12113&id=6627&shv=r20200506&cbv=r20190131&ptt=9&saldr=aa&abxe=1&cookie=ID%3D4dc15ec1c820e86e%3AT%3D1589042289%3AS%3DALNl_MadaOV3wc4D2rk8J8fW-370LIBA&cnv=1&prev_fm=661x280&nras=1&correlator=5789514039474&frm=20&pv=1&ga_vid=1425948114.1589041962&ga_sid=1589041963&ga_hid=1036498925&ga_fc=0&ia_g=0&icsg=36711407627&dsz=29&mso=0&ms=0&u_tz=330&u_his=2&u_java=0&u_h=768&u_w=1366&u_ah=728&u_au=1366&u_cd=24&u_nplug=3&u_nmime=4&adx=-12245933&ady=-12245933&biw=1017&bih=576&scr_x=0&scr_y=0&eid=21066085%2C410075106&oid=3&psvid=2108255065684398&pm=384&n=0&eee=2&fc=096&brdim=32000%2C-32000%2C-32000%2C-32000%2C1366%2C0%2C160%2C28%2C1034%2C576&vis=2&rsz=%7C%7C%7C8&abi=NS&fu=9232&bc=31&ifi=3&uci=a13&fsb=1&dt=6636
Method	GET
Evidence	85000002
URL	https://googleads.g.doubleclick.net/pagead/ads?client=ca-pub-5387217387406024&output=html&adsk=1812271804&ad=3025194257&mt=1589041964&plat=1%3A32776%2C2%3A16809992%2C8%3A32776%2C9%3A32776%2C16%3A8388608%2C17%3A32%2C24%3A32%2C25%3A32%2C30%3A1048576%2C32%3A32%2C40%3A32&guc=2.2.0.0.2.2.0.0&format=0x0&url=https%3A%2F%2Fsigiriyatourism.com%2F&e=a=0&flash=0&pra=7&wgl=1&adsid=NT&dt=1589041957720&bpp=2&bd=12113&id=6627&shv=r20200506&cbv=r20190131&ptt=9&saldr=aa&abxe=1&cookie=ID%3D4dc15ec1c820e86e%3AT%3D1589042289%3AS%3DALNl_MadaOV3wc4D2rk8J8fW-370LIBA&cnv=1&prev_fm=661x280&nras=1&correlator=5789514039474&frm=20&pv=1&ga_vid=1425948114.1589041962&ga_sid=1589041963&ga_hid=1036498925&ga_fc=0&ia_g=0&icsg=36711407627&dsz=29&mso=0&ms=0&u_tz=330&u_his=2&u_java=0&u_h=768&u_w=1366&u_ah=728&u_au=1366&u_cd=24&u_nplug=3&u_nmime=4&adx=-12245933&ady=-12245933&biw=1017&bih=576&scr_x=0&scr_y=0&eid=21066085%2C410075106&oid=3&psvid=2108255065684398&pm=384&n=0&eee=2&fc=096&brdim=32000%2C-32000%2C-32000%2C-32000%2C1366%2C0%2C160%2C28%2C1034%2C576&vis=2&rsz=%7C%7C%7C8&abi=NS&fu=9232&bc=31&ifi=3&uci=a13&fsb=1&dt=6636
Method	GET

[illegible]



[illegible]

## **5. Conclusion**

In these audits, we can identify what kind of weakness that is on our website and what is are solutions to those issues. The audit report has this issue divided to as risk level. We can, after doing these solutions, again scan our website use ZAP tools. We will show any problems has our web site anymore.

## 6. REFERENCES

- [1] <https://www.cloudflare.com/learning/security/what-is-web-application-security/>
- [2] <https://dzone.com/articles/top-10-automated-software-testing-tools>
- [3] <https://www.imperva.com/learn/application-security/application-security/>



