Web Application Security

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HTTP headers | Origin

Origin

- ✓ The Origin request header indicates the origin (scheme, hostname, and port) that caused the request.
- ✓ The **Origin HTTP Header** is a response HTTP header that indicates the security contexts that initiates an HTTP request without indicating the path information. The Origin header is added by the browser and can not be controlled by the user.
- ✓ **Origin: <scheme> "://" <hostname> ":" <port>**

Directives:

- <scheme>:

This is usually the HTTP or HTTPS protocol that is used.

- **<hostname>:**

This is the IP or domain name of the server.

- **<port>:**

This is an optional directive that tells Transmission Control Protocol port number of the server. The default port is implied if it is not specified.

Examples:

Origin: null

This means that there is no origin for the service requested.

Origin: https://www.nfsu.ac.in

HTTP headers | Referer

Referer

- ✓ The HTTP Referer header is a request-type header that identifies the address of the previous web page, which is linked to the current web page or resource being requested.
- ✓ The usage of this header increases the risk of privacy and security breaches on a website but it allows websites and web servers to identify where the traffic is coming from.
- ✓ The Referer can not be sent by the browsers if the resource is the local file or data.

- ✓ Syntax:

Referer: <url>

Directives: The HTTP Referer header accepts a single directive as mentioned above and described below:

- <url>: This directive is the address(partial or full) of the previous World Wide Web page which was followed by a link to the currently requested page.

- ✓ Syntax:

Referer: <url>

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- <url>: This directive is the address(partial or full) of the previous World Wide Web page which was followed by a link to the currently requested page.

Referer

- ✓ Below examples illustrates the HTTP Referer header:

Examples:

- ✓ In this example, google.com is the address of the previous web page.

Referer: https://www.google.com/

Referer

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Examples:

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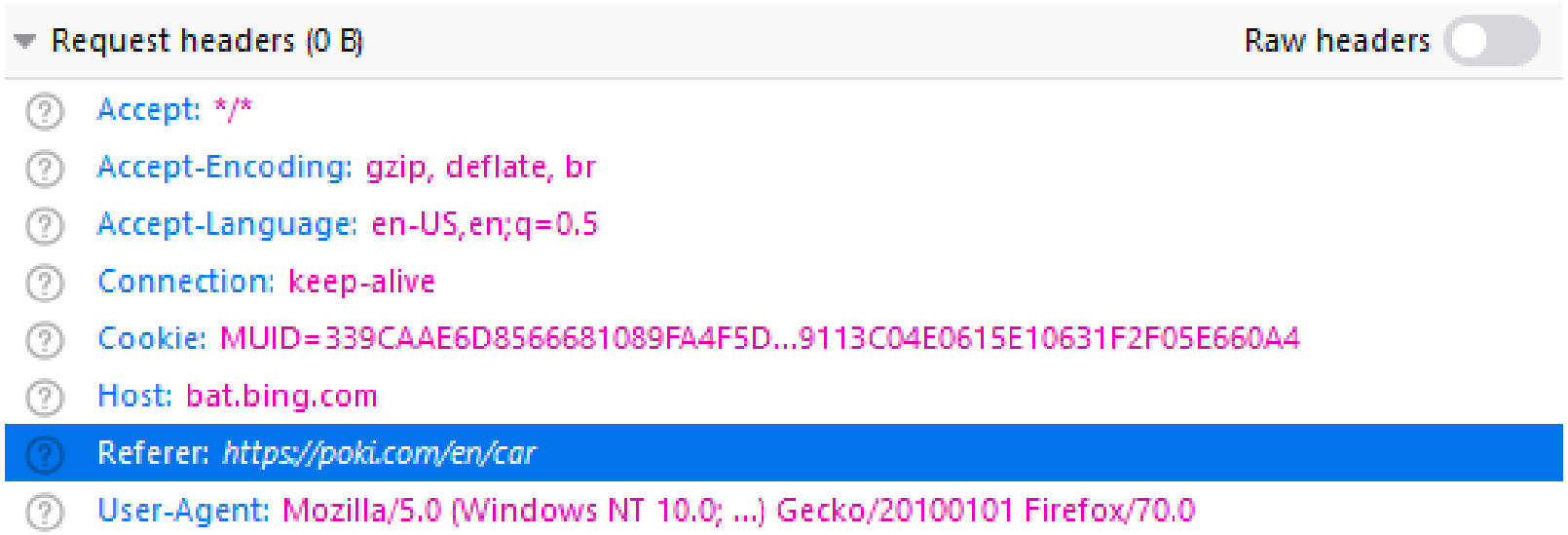
Referer: https://www.google.com/

Referer

- ✓ To check the Referer in action go to Inspect Element -> Network check the request header for Referer like below. Referer header is highlighted.



Supported Browsers:

The browsers are compatible with **HTTP header Referer** are listed below:

1. Google Chrome
2. Internet Explorer
3. Microsoft Edge
4. Firefox
5. Opera
6. Safari

Origin Vs Referer

- ✓ The Origin header is similar to the Referer header, but does not disclose the path, and may be null .
- ✓ It is used to provide the "security context" for the origin request, except in cases where the origin information would be sensitive or unnecessary.

HTTP headers | Host

Origin Vs Referer

- ✓ The HTTP Host represents the domain name of the server.
- ✓ It may also represent the Transmission Control Protocol (TCP) port number which the server uses.
- ✓ Defining the port number is optional, the default value is considered. For example, “80” is assigned as the port number for an HTTP URL when there is no port number specified.

Origin Vs Referer

- ✓ The HTTP Host represents the domain name of the server.
- ✓ It may also represent the Transmission Control Protocol (TCP) port number which the server uses.
- ✓ Defining the port number is optional, the default value is considered. For example, “80” is assigned as the port number for an HTTP URL when there is no port number specified.

- ✓ The HTTP Host header is a request type header. The host header field must be sent in all HTTP/1.1 request messages.
- ✓ If a request message does not have any header field or more than one header field, a 400 Bad.
- ✓ Request is sent.

Syntax :

Host: <host>:<port>

- ✓ The HTTP Host header is a request type header. The host header field must be sent in all HTTP/1.1 request messages.
- ✓ If a request message does not have any header field or more than one header field, a 400 Bad.
- ✓ Request is sent.

Syntax :

Host: <host>:<port>

- ✓ Directives: The HTTP header Host accepts two directives mentioned above and described below:

  <host>: This directive represents the domain name of the server.

  <port>: This directive is an optional one. It represents the TCP port number in which the server is working.

Example : http://www.nfsu.ac.in Host: nfsu

Mobile Phone Security

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