

Header in PHP: A Comprehensive Report

1. Introduction

The `header()` function in PHP is a crucial tool for sending raw HTTP headers to the client before any other output is sent. HTTP headers are a fundamental part of web communication, allowing the server to pass information to the client (typically a web browser) about the response it is sending.

2. Basic Usage

The `header()` function is used to modify the HTTP response header. It must be called before any actual output is sent, either by normal HTML tags, JavaScript code, or even whitespace. If any output has already been sent before calling `header()`, a "headers already sent" warning will occur.

3. Syntax

```
header(string $header, bool $replace = true, int $http_response_code = 0);
```

- **\$header:** This is a mandatory parameter that specifies the header string to be sent.
- **\$replace:** This optional parameter indicates whether to replace a previously sent header with the same name. The default is `true`, meaning the previous header is replaced.
- **\$http_response_code:** This optional parameter forces the HTTP response code to be a specific value. For example, setting it to `404` would send a "404 Not Found" response.

4. Common Use Cases

- One of the most common uses of the `header()` function is to redirect users to another page.

```
header("Location: http://www.example.com/");  
exit();
```

This sends a `Location` header to the browser, instructing it to navigate to the specified URL. The `exit()` function is often used immediately after `header()` to ensure that no further code is executed.

- The `header()` function is often used to specify the MIME type of the content being returned.

```
header("Content-Type: application/json");  
echo json_encode($data);
```

- To prevent the browser from caching a page, multiple headers can be sent:

```
header("Cache-Control: no-cache, must-revalidate"); // HTTP/1.1
```

```
header("Expires: Sat, 26 Jul 1997 05:00:00 GMT"); // Date in the past
```

- Custom headers can be sent for various purposes:

```
header("X-Custom-Header: MyValue");
```