

Working with Cookies



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Overview



Creating cookies

Implementing cookies

Deleting cookies

Best practices





Cookies are set by the server and stored client-side

Stored in PHP super global variable
`$_COOKIE`

Limited data storage

Stored in browser, hence less secure





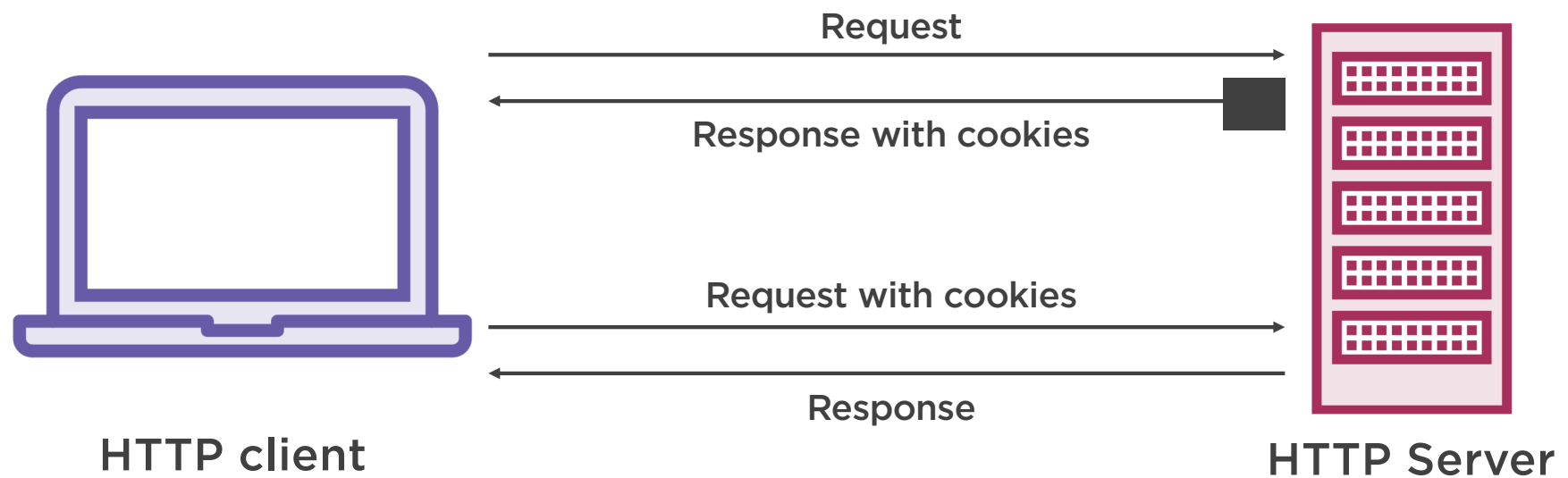
Cookies are used to

- identify unique visitors
- personalize the user experience
- track the pages visited by a user

Cookies rely on the HTTP protocol



HTTP Request-response with Cookies



Request-response with Cookies

Request 1:

GET /firstpage.php HTTP/1.1

Host: www.domain1.com

Accept: */*

Response 1:

HTTP/1.1 200 OK

Content-type: text/html

Set-Cookie: lang=french

Request 2:

GET /secondpage.php HTTP/1.1

Host: www.domain1.com

Cookie: lang=french

Accept: */*





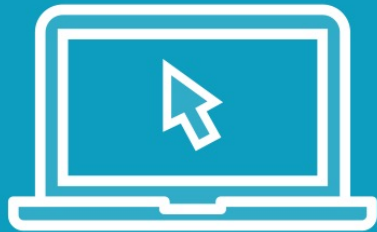
A user sends a request for the page that sets cookies

The server then sets the cookie on the user's computer

Other page requests from the user will send the cookie name and value



Demo



Creating cookie

Using and updating cookie

Deleting cookie



Creating Cookies

```
setcookie(string $name, string $value="", array $options=[]) : bool
```

name: name of the cookie

value: value or information to be stored in the cookie

options: associative array with the following keys

- expires
- path
- domain
- secure
- httponly
- samesite



Creating Cookies

```
setcookie(string $name, string $value="", array $options=[]) : bool
```

options

expires: specifies when the cookie expires, default is 0



Creating Cookies

```
setcookie(string $name, string $value="", array $options=[]) : bool
```

options

`expires`: specifies when the cookie expires, used with `time()`

for 1 hour:

```
setcookie(name, value, time()+3600);
```

for 1 day:

```
setcookie(name, value, time()+86400);
```

for 30 days:

```
setcookie(name, value, time()+86400*30);
```



Creating Cookies

```
setcookie(string $name, string $value="", array $options=[]) : bool
```

options

expires: specifies when the cookie expires, default is 0

path: server path or the path of the domain to which cookie is sent



Creating Cookies

```
setcookie(string $name, string $value="", array $options=[]) : bool
```

options

path: server path or the path of the domain to which cookie is sent

domain1.com

```
setcookie(name, value, time()+3600, '/php/');
```

domain1.com/php

```
setcookie(name, value, time()+ 3600, '/');
```

domain1.com/*



Creating Cookies

```
setcookie(string $name, string $value="", array $options=[]) : bool
```

options

expires: specifies when the cookie expires, default is 0

path: server path or the path of the domain to which cookie is sent

domain: name of the domain, for which the cookie will be active



Creating Cookies

```
setcookie(string $name, string $value="", array $options=[]) : bool
```

options

domain: name of the domain, for which the cookie will be active

www.domain1.com -> www

domain1.com -> any and all subdomains of domain1.com



Creating Cookies

```
setcookie(string $name, string $value="", array $options=[]) : bool
```

options

expires: specifies when the cookie expires, default is 0

path: server path or the path of the domain to which cookie is sent

domain: name of the domain, for which the cookie will be active

secure: if cookie should be transmitted only over secure HTTPS connection,
default is FALSE

httponly: cookie will only be available through the HTTP protocol



Creating Cookies

```
setcookie(string $name, string $value="", array $options=[]) : bool
```

options

expires: specifies when the cookie expires, default is 0

path: server path or the path of the domain to which cookie is sent

domain: name of the domain, for which the cookie will be active

secure: if cookie should be transmitted only over secure HTTPS connection,
default is FALSE

httponly: cookie will only be available through the HTTP protocol

samesite: specifies if the cookie should be sent for the cross-site
requests



Creating Cookies

```
setcookie(string $name, string $value="", array $options=[]) : bool
```

options

samesite: specifies if the cookie should be sent for the cross-site requests

None: cookies can be used across sites

Lax: same-site requests and standard link for target sites

Strict: only same-site request, no cross-site at all



Creating Cookies

```
$options = array (  
    'expires' => time() + 60*60*24,  
    'path'    => '/',  
    'domain'  => '.domain1.com',  
    'secure'  => true,      // or false  
    'httponly' => true,    // or false  
    'samesite' => 'None' // or Lax or Strict  
);  
setcookie('lang', 'french', $options);
```



Creating Cookies



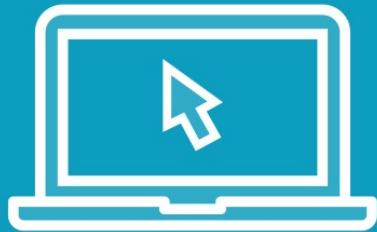
Cookies are transferred in HTTP headers

setcookie() should be called before any output to the browser

- before <html>
- before echo() or print()



Demo



Using the cookies

- `$_COOKIE`

Updating cookies

- `setcookie(name, value, options['expires'])`



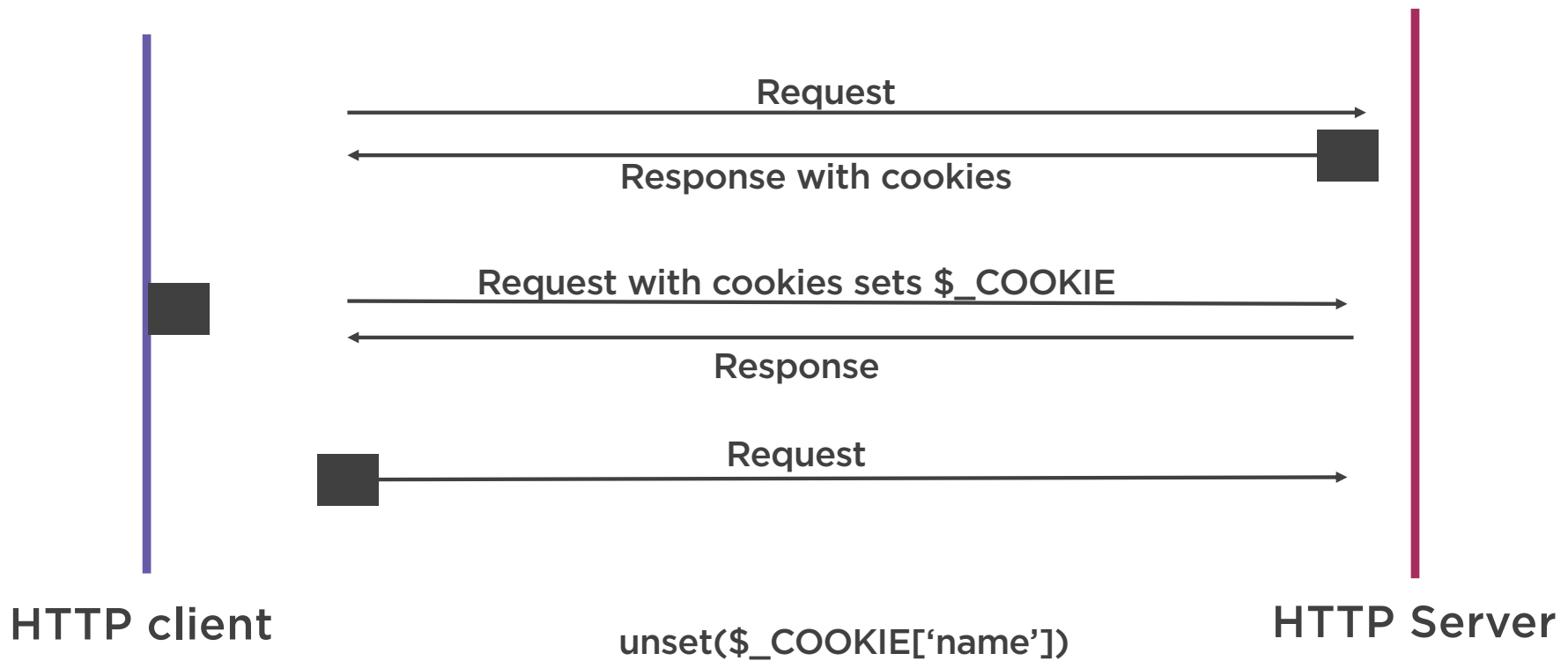
Deleting Cookies



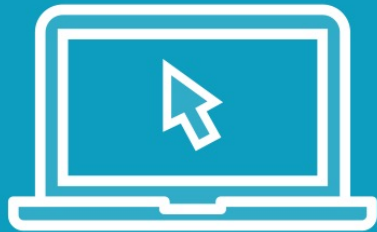
Cookies are saved in `$_COOKIE`
`unset($_COOKIE[<cookie-name>])`



Why Does unset() Not Work with Cookie?



Demo



Deleting cookies

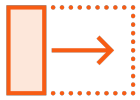
- `options['expires'] = time() - x`
- `setcookie(name, value, options);`



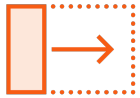
Best Practices



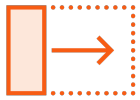
Best Practices When Using Cookies



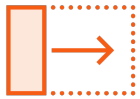
No sensitive data



Filter data coming from cookies



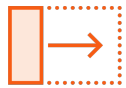
Set the expiration date



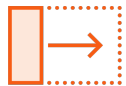
Set the secure, httponly and samesite options



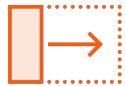
Limitations of Cookies



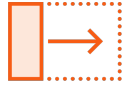
Storing any sensitive data is highly not recommended



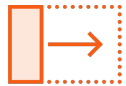
Cookies could be turned off in a browser by the user



Size of cookies is limited to 4KB



Available in `$_COOKIE` only after page is reloaded in the browser



Same information makes round trip to the server



Working with Sessions

