

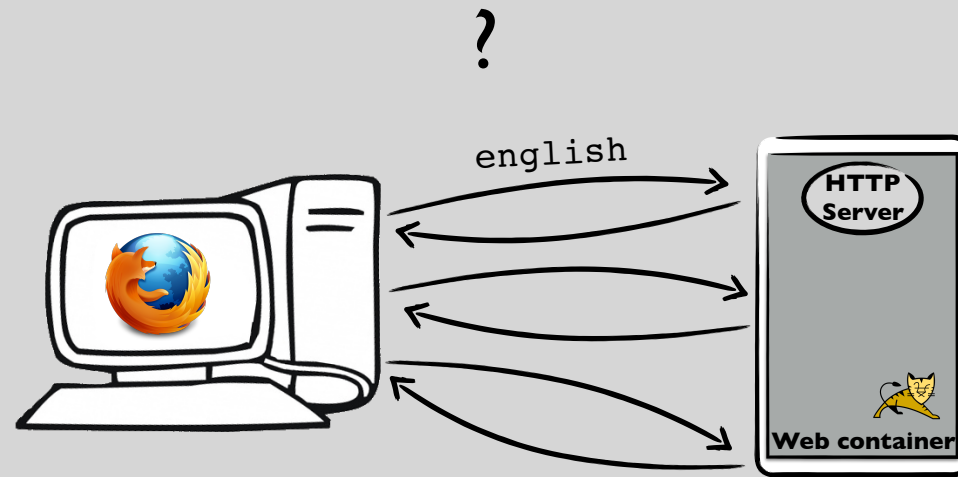
# Web 3

Lesson 8: Cookies

# EXAM QUESTIONS...



- ☒ Is a cookie saved at the client side or at the server side?
- ☒ Explain how a cookie works.
- ☒ How can you set the expiration time of a cookie?
- ☒ Is a cookie safe? Why or why not?
- ☒ ...



- How can we save our language choice?

# OPTION 1: CLIENT

1. client chooses a language
2. server reads chosen language and returns it to client
3. client saves this and sends it in each request
4. server uses this info in order to show the right language

**COOKIES**

# COOKIES

- What?
  - **name-value** pairs, eg. `language=english`
- Why?
  - to save **temporary data**
  - info about **one client**
  - for **one domain/path**

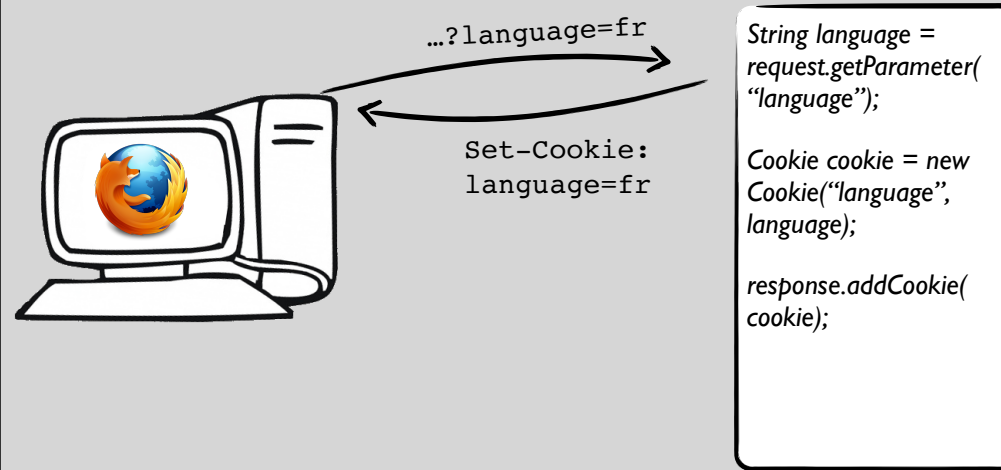
# COOKIES

- Where?
  - made by a '**script**' on the **server**
  - saved by the **client** in its **browser**
- How?
  - server makes a cookie
  - ... and gives this to the client in the **response header**
  - browser sends the cookie within each **request header**



- server makes a cookie
- ...and gives it to the client in response header
- **addCookie() method**

# STEP I







- browser sends the cookie in each request header
- server reads cookie: **getCookies()**

## STEP 2



Cookie: language=fr



```
Cookie[] cookies =  
request.getCookies();
```

```
for ...  
if(cookie.getName().  
equals("language")){  
    cookie.getValue();  
}
```

# TILL WHEN?

- until **expiration time**
  - `cookie.setMaxAge(24*60*60) // 24 hour`
  - `cookie.setMaxAge(0) // immediately`
- or until **the closing of the browser**
  - `cookie.setMaxAge(-1) // when browser closes`

# COOKIE



- in browser
- can be removed/blocked
- unsafe → google “edit http cookies”
- expiration time can be set
- only to use when sending few/small data
- example: choice of language → network load!

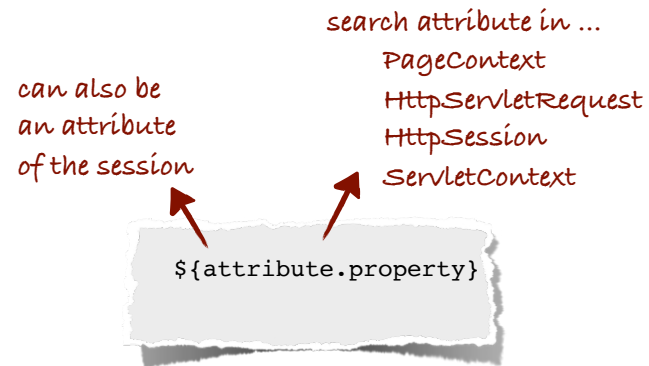
# OPTION 2: SERVER

- Topic for next week ...

SESSIONS

# REMARK:

## EXPRESSION LANGUAGE: . OPERATOR



the container does not only checks the request, but also the other places where an attribute might be stored

# REMARK:

## IMPLICIT OBJECTS

`${attribute.property}`

`${header["host"]}`

`${implicitObject.keyOrProperty}`



*pageScope  
requestScope  
sessionScope  
applicationScope  
param  
paramValues  
header  
headerValues  
cookie  
initParam  
pageContext*

`${param["id"]}`

`${initParam.mainEmail}`

`${cookie.JSESSIONID.value}`



<p>Request cookie was `${cookie.language.value}`.</p>

*obtain value of cookie with key "language"*



cookie object contains **request** cookie



# LEGISLATION

- privacy and data protection of EU citizen
- “cookie notice” page and “cookie consent”
- not for “essential” cookies
- read more [https://  
www.gegevensbeschermingsautoriteit.be/faq-themas/  
cookies](https://www.gegevensbeschermingsautoriteit.be/faq-themas/cookies)

last update: 15/10/18

# REFERENCES

- <https://tomcat.apache.org/tomcat-7.0-doc/servletapi/javax/servlet/http/Cookie.html>
- <https://tomcat.apache.org/tomcat-7.0-doc/api/org/apache/catalina/connector/Response.html>
- <http://tutorials.jenkov.com/java-servlets/cookies.html>