

Web 3

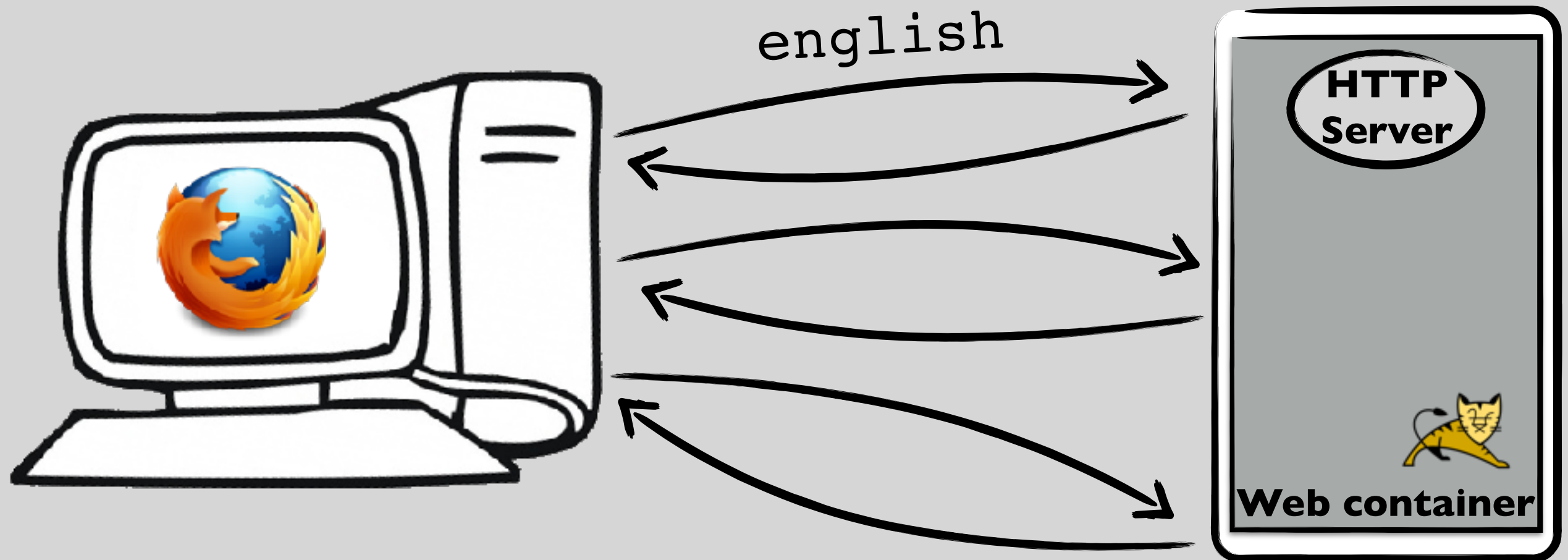
Lesson 8: Cookies

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**

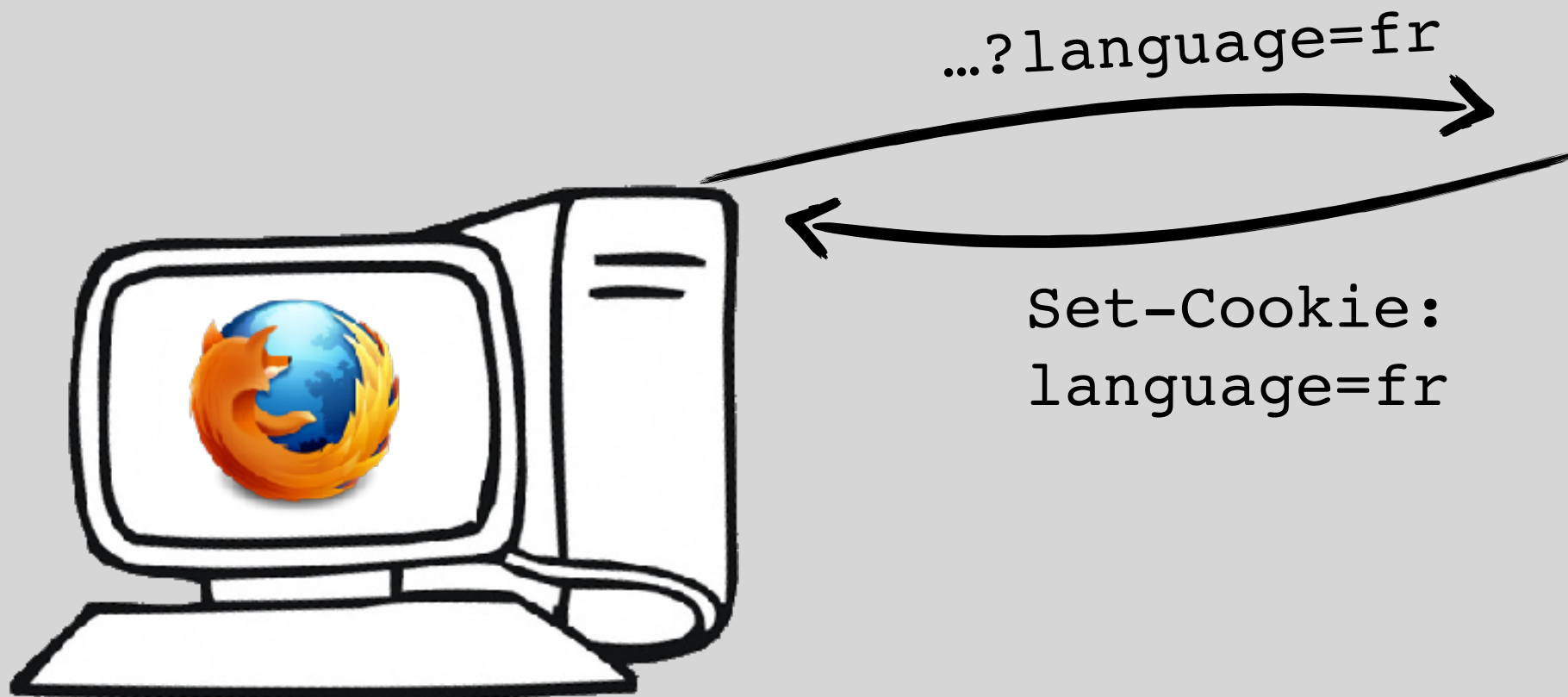
COOKIES

- 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**



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

STEP I



```
String language =  
request.getParameter(  
    "language");
```

```
Cookie cookie = new  
Cookie("language",  
    language);
```

```
response.addCookie(  
    cookie);
```


LANGUAGE EXAMPLE

DEMO



- 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();  
}
```

LANGUAGE EXAMPLE

DEMO

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

SESSIONS OF COOKIES?



LEGISLATION

- privacy and data protection of EU citizen
- “cookie notice” page and “cookie consent”
- not for “essential” cookies
- read more <https://www.privacycommission.be/nl/faq-themas/cookies>

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>

REFERENCES LEGISLATION

- <https://www.privacycommission.be/nl/faq-page/9160>
- http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=nl&la=N&table_name=wet&cn=2012071004
- <https://www.lincelot.com/cookiewetgeving-website-belgie/#>
- http://ec.europa.eu/ipg/basics/legal/cookies/index_en.htm