

Session Tracking with JSP

Topics

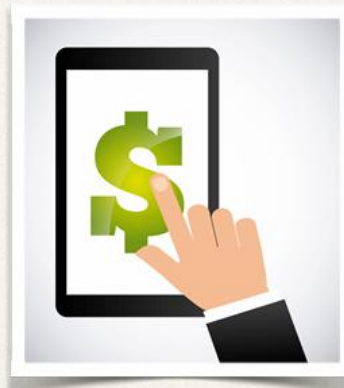
- Session Tracking Demo
- Session - Coding Steps
- Full JSP Session Example

JSP session object

- JSP session is created once for user's browser session. Unique for this user
- Commonly used when you need to keep track of the user's actions



Shopping Cart



Online Banking

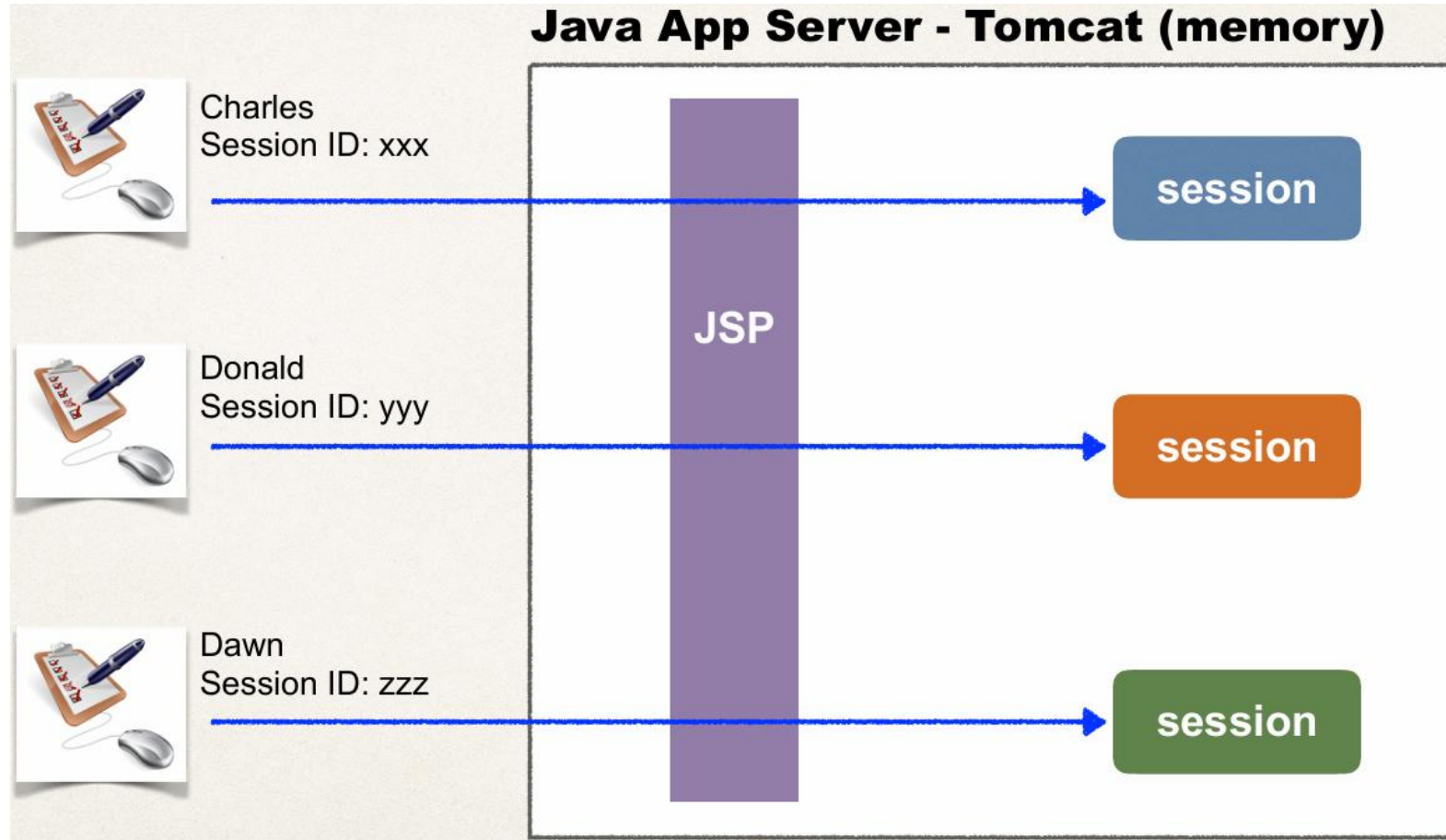


Online Exam

Session Demo Example

- JSP page to manage a TO DO list
- List of items will be stored in the user's session object
- Each user will have their own TO DO list

Big Picture



Add data to session object

Method signature

```
session.setAttribute(String name, Object value)
```

Code example

```
List<String> items = new ArrayList<>();  
session.setAttribute("myToDoList", items);
```

Retrieve data from session object

Method signature

```
Object session.getAttribute(String name)
```

Code example

```
List<String> myStuff = (List<String>) session.getAttribute("myToDoList");
```

JSP Session - Other useful methods

Method	Description
<code>isNew() : boolean</code>	Returns true if the session is new
<code>getId() : String</code>	Returns the session id
<code>invalidate() : void</code>	Invalidates this session and unbinds any object associated with it
<code>setMaxInactiveInterval(long mills) : void</code>	Sets the idle time for a session to expire. The value is supplied in milliseconds

Cookies

Topics

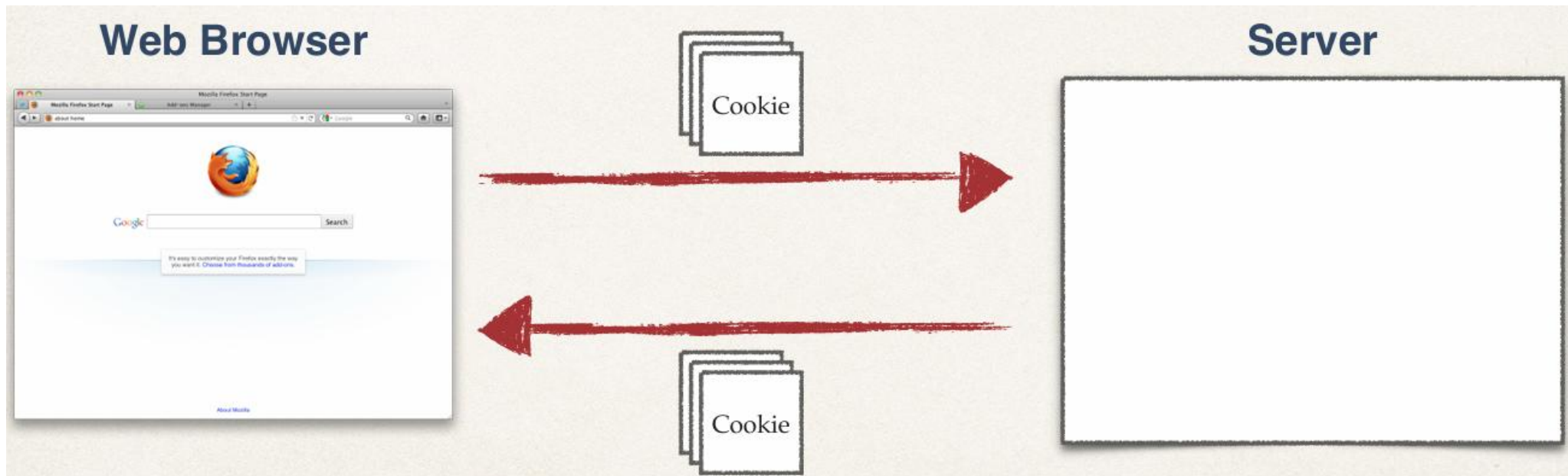
- What are Cookies?
- Cookies API

What is the Purpose of Cookies?

- Personalize a web site for a user
- Keep track of user preferences
 - Favorite programming language: Java
 - Favorite departure airport: Philadelphia (PHL)
 - Etc...

What is a Cookie?

- Text data exchanged between web browser and server



Cookies - Contents

- Name / value pair

Cookie

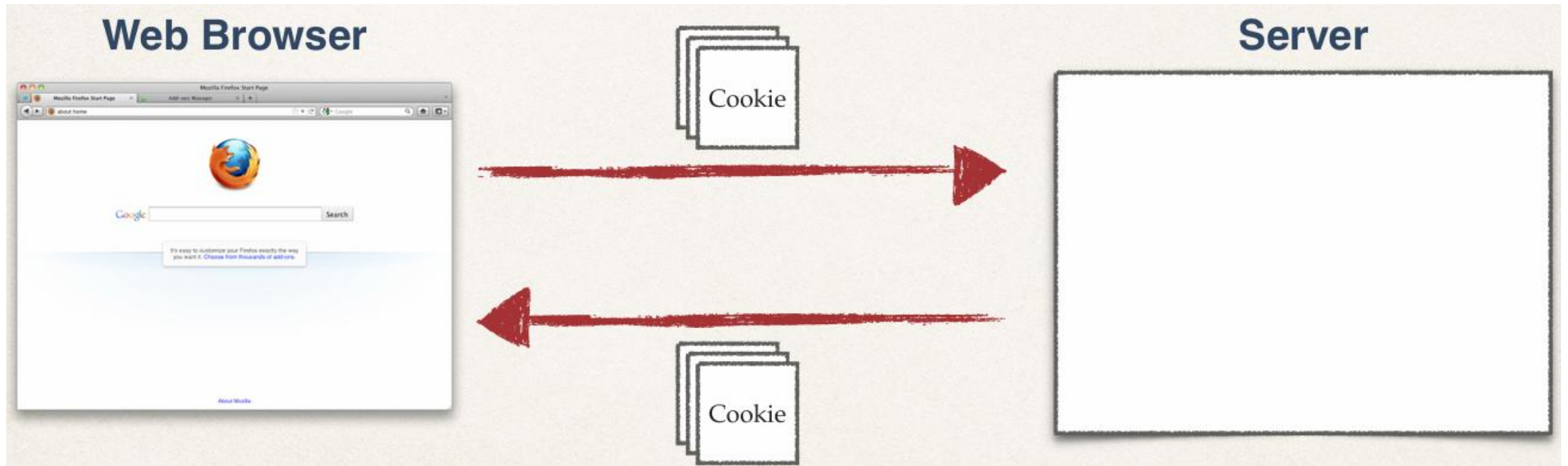
name: myApp.favoriteLanguage
value: Ruby
...

Cookie

name: myApp.favoriteCity
value: Philadelphia
...

How Are Cookies Passed?

- Browser will only send cookies that match the server's domain name



Cookie API - Package

- Cookie class defined in package: `javax.servlet.http`
 - Package imported for free in all JSP pages

Cookie API - Constructor

Cookie(String name, String value)

Constructs a cookie with the specified name and value

Cookies API - Sending Cookies to Browser

```
<%
```

```
String favLang = request.getParameter("favoriteLanguage");
```

```
// create cookie
```

```
Cookie theCookie = new Cookie("myApp.favoriteLanguage", favLang);
```

```
// set life span ... total number of seconds
```

```
theCookie.setMaxAge(60*60*24*365);
```

```
// send cookie to browser
```

```
response.addCookie(theCookie);
```

```
%>
```

Cookies API - Reading Cookies from the Browser

```
<!-- read the favorite programming language cookie -->
<%
    String favLang = "Java";

    Cookie[] theCookies = request.getCookies();

    if (theCookies != null) {
        for (Cookie tempCookie : theCookies) {

            if ("myApp.favoriteLanguage".equals(tempCookie.getName())) {
                favLang = tempCookie.getValue();
                break;
            }
        }
    }
%>
```

Pulling It All Together

