

# TWeb



Cookies

Bertil Chapuis

## ☰ Overview of Today's Class

- Evaluation
- Cookies and Sessions
- Projects

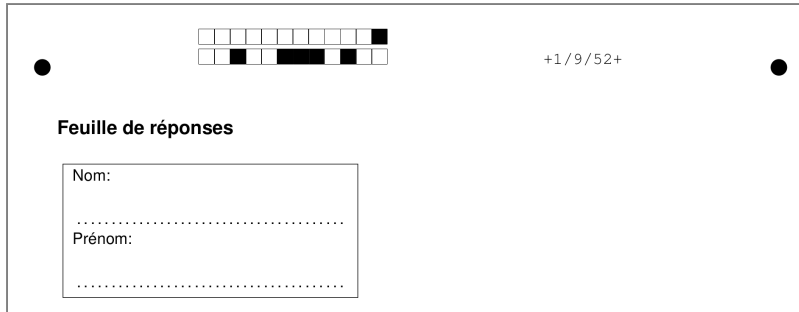
## Evaluation

# Instructions Générales

- Durée: 1h
- Aucune documentation autorisée
- Ne répondez que sur la feuille de réponses! Aucune autre réponse ne sera prise en compte.
- Les questions sans ♣ ont une bonne réponse.
- Les questions avec ♣ ont une ou plusieurs bonnes réponses.
- Vous rendrez cet énoncé et la feuille de réponses.
- Les deux documents doivent porter votre nom et prénom.

# Grille de Réponses

Un logiciel de QCM est utilisé pour les évaluations:



The screenshot shows a software interface for a QCM (Multiple Choice Question) evaluation. At the top, there is a progress bar with 12 segments, the first 11 of which are empty and the last one is filled. To the right of the progress bar, the text "+1/9/52+" is displayed. Below the progress bar, the text "Feuille de réponses" is visible. Underneath, there is a form with two fields: "Nom:" and "Prénom:", each followed by a dotted line for text entry.

Remplissez les cases de réponse de la manière suivante (une bonne réponse):



The diagram shows a row of five circular options. The first circle is a solid black circle, indicating it is the correct answer. The other four circles contain the letters B, C, D, and E respectively.

Ou de la manière suivante (plusieurs bonnes réponses):



The diagram shows a row of five circular options. The first, second, and fourth circles are solid black circles, indicating they are correct answers. The third circle contains the letter C, and the fifth circle contains the letter E.



# Grille de Réponses

- Coloriez complètement et proprement chaque case choisie
- Utilisez du noir ou du bleu foncé
- Ne coloriez pas les cases au crayon et n'utilisez pas de couleur rouge
- Utilisez si possible un Tipp-Ex pour corriger une éventuelle erreur

**Bon travail!**



# Cookies and Sessions



# Cookies \*

A cookie is a small piece of data that a server sends to the user's web browser.

The browser may store it and send it back with the next request to the same server.

Cookies are mainly used for three purposes:

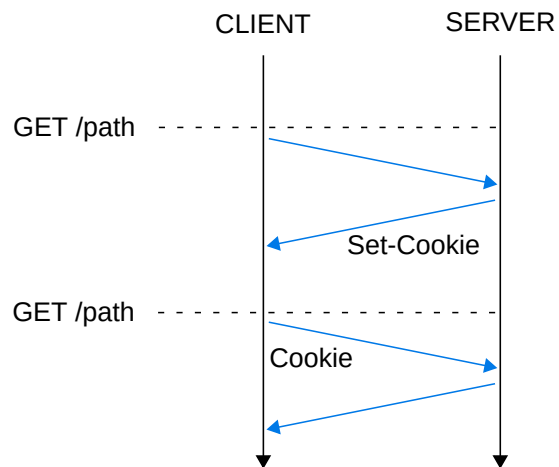
- Session management
- Personalization
- Tracking

Cookies remember stateful information for the stateless HTTP protocol.

They are sent with every request and can worsen performance.

\* <https://developer.mozilla.org/en-US/docs/Web/HTTP/Cookies>

# HTTP Headers \*



The Set-Cookie HTTP response header sends cookies from the server to the user agent.

```
Set-Cookie: <cookie-name>=<cookie-value>; <cookie-name>=<cookie-value>
```

The browser will send back all previously stored cookies to the server using the Cookie header.

```
Cookie: <cookie-name>=<cookie-value>; <cookie-name>=<cookie-value>
```

# HTTP Headers \*

A cookie without `Expires` is called a session cookie, i.e., it is deleted when the client shuts down.

```
Set-Cookie: cookie=choco
```

A cookie with `Expires` set to a date or to `Max-Age` will survive the session.

```
Set-Cookie: cookie=choco; Expires=Wed, 21 Oct 2020 07:28:00 GMT;
```

The cookie can be made inaccessible to JavaScript with the `HttpOnly` directive.

```
Set-Cookie: cookie=choco; HttpOnly
```

It is also possible to require the HTTPS protocol for transmitting cookies with the `Secure` directive.

```
Set-Cookie: cookie=choco; Secure
```

\* <https://developer.mozilla.org/en-US/docs/Web/HTTP/Cookies>

## Setting Cookies from the Client \*

It is possible to access the cookie from the same origin with javascript.

```
var cookie = document.cookie;
```

Similarly, the value of the cookie can be modified from JavaScript.

```
document.cookie = "another_cookie=more_choco";
```

\* <https://developer.mozilla.org/en-US/docs/Web/API/Document/cookie>

## Cross-site Request Forgery (CSRF) \*

CSRF is an attack that impersonates a trusted user and sends a website unwanted commands.

Clone the `example-cookie` repository in the `tweb-classroom` organization.

It illustrates how easily this kind of attack can be achieved.

\* <https://developer.mozilla.org/en-US/docs/Glossary/CSRF>

👋 Questions?

☑☑☐ Project

# 📋 Project

Implémenter et documenter **deux améliorations significatives** au jeu vidéo.

Exemples:

- Faire le rendu du jeu avec WebGL avec **threejs**
- Communiquer en P2P avec WebRTC avec **peerjs**
- Créer une plateforme de gestion des parties
- Sécuriser l'ensemble de l'application
- Changer le gameplay
- Implémenter une IA

Les améliorations doivent être décrites et validées dans un délai de deux semaines.

Soyez créatifs... ;)



👋 Questions?