EURECOM
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Human-Computer Interaction for the Web: Interaction Design and User Evaluation

Web Interaction, Fall 2020

Instructions:

- Mail your source files (**.html, .css, .js**) to <raphael.troncy@eurecom.fr> in a zip archive that should be named `lastName.zip`
  (AND **NO** other files such as video, images, etc.).
- Warning: ZIP archives are easily corrupted when using the Webmail ... (cc you and check that the archive is not corrupted)
- Add a short description (20 lines max) in your email to state:
  - What your web page is describing and what you have done. Don't forget answering this question!
  - The id of the questions you haven't been able to do and the reasons why you have found difficult to answer these questions;
  - An approximation of the total time required to answer all the questions in number of hours including the 3 hours lab.
- Deadline is: **Monday 30/11/2020, 23:59 CET**

Exercice: Practicing HTML 5, CSS and Javascript:

1. Design and implement an HML5 web page that uses the new structural constructs (`<header>`, `<nav>`, `<article>`, `<section>`, `<aside>`, `<footer>`). As an example, imagine that this web page will be a video streaming platform (e.g. YouTube) page and fill in each structural element with what you generally find as component in such a page (video, comments, users' avatars, ads, etc.). *2pts*
2. Design and implement a style sheet for giving some aesthetics to this web page. The style sheet should be a distinct CSS file. Indicate if your web page is responsive, i.e. does it adapt on smaller screens such as mobile screens and how did you do this? *2pts*
3. Include a video:
   a) Add a video into your web page using the HTML5 media construct with the default controls; *1pt*
   b) Make your web page viewable for Chrome, Firefox and Safari/iPhone/iTouch and tell me how you did that. *0.5pt*

   You can pick a video from the following resources (but you should not use a local copy of the video):
   - Archive.org: http://archive.org/details/opensource_movies
   - Wikimedia Commons: https://commons.wikimedia.org/wiki/Category:Videos
   - Example: http://commons.wikimedia.org/wiki/Category:Elephants_Dream_videos
4. Add a form (and implement the interactivity in JS) besides the video that contain at least:
   a) A URL field to dynamically change the video that can be played with possible error handling; *0.5pt*
   b) A text field where the user can enter an integer (e.g. 15) so that the video seeks (jumps) directly to this offset in the video (e.g. start playing at 15s) with possible error handling; *0.5pt*

    c) A button to extract a preview of the video and display this preview besides the video; *1pt*
    d) A button to rotate the video. *1pt*
5. Video (advanced)
    a) Add a checkbox to display or hide the default controls; *0.5pt*
    b) Add a button to mirror the video in a canvas; *1pt*
    c) Add a second video in a bubble shape. *1pt*
6. Before adding any comment to the video, the user should login to the site. Show a registration form, that is visible only if the user is not logged in:
    a) The form asks for a *first name*, a *last name*, an *email* and a *phone* number; *0.5pt*
    b) Make sure that each field is correctly typed so that, for example, the keyboard will automatically adapt on a mobile device. Make sure that a minimum check is performed when the user will fill in the form. *0.5pt*
    c) Save the given information on Session Storage. *0.5pt*
    d) Use JavaScript in order to check if the user information is already in the Session Storage. If yes, display the login form, otherwise display the interface for adding new comments (see next point). *0.5pt*
7. The user can now start adding new comments.
    a) Implement a form for adding text comments, that are displayed after the form submission, together with the user's name and the date-time; *1pt*
    b) When new comments are submitted, use the geo-location API for display the city and the country of the writer next to the date-time; *2pt*
    c) (advanced) Save the information about the comment in the Local Storage, in order to display all the comments again at the refresh of the page; 1*pt*
    d) (advanced) Use the <detail> element in order to display and hide a map centred in the retrieved location; *1pt*
8. Below the main video of the page, implement a video jukebox player, or in other words, a series of videos that will be played one after the other, like playing a channel in YouTube. The jukebox should contain 3 or 4 videos and display a message such as "Playing video x/y" with the title of the video. *1pt*
9. Validate your HTML/CSS page. *1pt*