Polytechnic University of Cartagena

Higher Technical School of Telecommunications Engineering

APPLICATIONS ON THE INTERNET

Practice 5: JAVASCRIPT

Teachers:

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1. Goals
– Understand how the events are fired in the browser.
– Understand the basics of javascript and the use of DOM functions.

2. Practice
In this practice you will work with javascript. To do this, you will complete the scripts made in the previous practice with javascript and some CSS code. Basically we'll add a greatly simplified "lightbox" effect to the script showing videos of the database.
Before starting the lighbtox, practice creating objects and invoking functions.

1) To work with javascript you must create a text file in a directory that can be served by the HTTP server (you can call it whatever you want, for example, p5.js). You must link that javascript file to an HTML document using a <script> element. It will then ask your server for the HTML document.
2) Declare a Student object with a name and ID property, with the values you want.
3) Declare a function verArgs (e, c). This function will show in console through console.log (), the arguments that are passed to it.
4) Assign this function to the Student object as a method. Invoke that function directly by passing the Student object as the first argument. Invoke that function as a Student method by passing a string of characters and an integer as arguments.
5) Add the line console.log (this.id) to the function and re-invoke it directly and as a student method.
6) Practice the ways of assigning events to functions. Assign an event via HTML that displays a pop-up window when the page has finished loading with the message "Loaded". You will need to add the javascript code that shows that window.
7) Assign the function verArgs to the event and observe what happens. What parameter(s) is passed to the function? Use the Development Tools Console to examine all the attributes of the object passed to it as a parameter. Assignment of events through DOM functions. When the page has been loaded, create a function that, in turn, uses the DOM function getElementsByTagName () with javascript to assign to all the images on the page an event that by clicking on them causes the "lightbox" function to be executed. This last function will only show a border around the selected image. To do this, use the javascript *style* property of the element that assigns CSS to an element.

8) To build the ligthbox, first insert a DIV into the HTML before the table. This DIV will have id = "lightbox". Check that, since the div is empty, nothing is displayed in the browser.

a) Add the following style as a separate sheet (style.css) to your div.

```
#lightbox{
        padding: 10px;
        border-bottom: 2px solid #666;
        border-right: 2px solid #666;
        width:85%;
        margin-left: auto ;
        margin-right: auto ;
        padding-left: auto ;
        padding-right: auto ;
        text-align:center;
        background-color:rgba(0,0,100,0.5);
}
```

Now the browser does show something since the edges are solid.

a) a) Add a CSS property that does not show anything of the div by screen.

8) Modify the lightbox () function so that when you click on the image, an IMG element is added to the DIV of the lightbox with the image selected.

a) The DIV is now shown with the image, but the rest of the elements are moved downwards. What we want is for it to be superimposed. To do this, add the position property to the lightbox css, try relative and absolute.

b) Check with the firefox inspector the HTML code before and after clicking on the image.

9) Finally, we need to close the lightbox. The simplest thing is to add a hyperlink under the lightbox image that says "Close". Its href attribute will be empty and an event will be assigned so that the close () function will be executed when the link is clicked. This function will close the lightbox, that is, it will not show on the screen.

10) As a last step, we will use AJAX to load the content of the movie description in the lightbox. For that:

a) Modify the onclick event of the images so that by clicking them they load the getInfo(). This feature will make the AJAX call a PHP (text.php) that will return the description of the film. The PHP GET method will receive the video ID in the DB. AJAX will invoke the showLightbox() function when the request is finished. Furthermore, it is desirable to add an ID attribute to the image with the ID of the video in the database.

b) Additionally perform the above function display the lightbox, but it will simply show a loading bar <progress> </ progress>. It will not show the image.

c) In the showLightbox function display the image, text description and hyperlink to close. You may need to store the src of the image to display on a global variable previously.