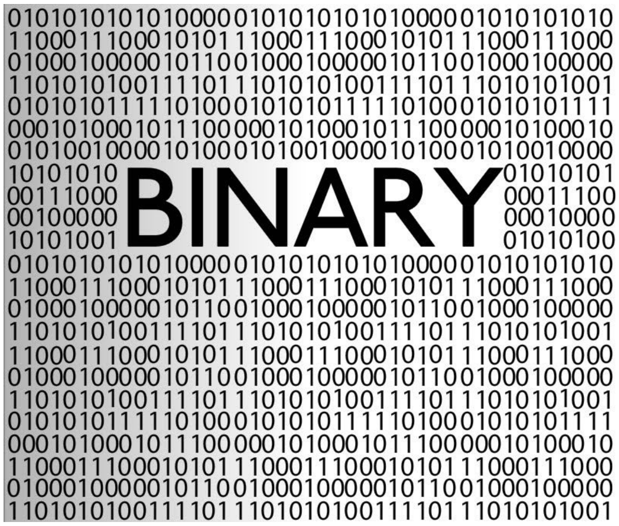
Ex4: Internet 2016/2017



1. Read about AJAX:
    a. https://developer.mozilla.org/en-US/docs/AJAX/Getting_Started
    b. https://en.wikipedia.org/wiki/Ajax_(programming)
    c. http://api.jquery.com/jquery.ajax/ (optional if you would like to learn and use JQuery)
2. Build a Binary Game Web App (This game is our invention)
    a. This game consists of only one screen, in this game users gamble on either 1 or 0.
        i. The user **wins** the game if the users who have gambled until now chose the other-number(e.g. 1) more times than the number the user chose(e.g. 0). Otherwise the user lost.
        ii. If there is a tie, the user does not win and does not lose
        iii. Anyone can reset the counting at any moment
    b. Your job is to use YOUR ex3 web server to create this game.
        i. You should create at least one HTML file called binary.html. Your server should return this html upon “/www/binary.html” (GET)
            1. Binary.html should exist in a folder called “www” under your project
            2. You are allowed to add additional files. Those files should be accessed via the /www/<file-name> command and should “exist” in the www folder.
                a. E.g. consider having external .js file or/and .css file. Keep in mind that your server does not support images.
            3. Binary.html should consists of 3 buttons
                a. Those buttons MUST be visually larger than the default

button

        b. Button “0” means that the user choose “0”
            i. You should let the server know which number the user chose by sending a message to the “/gamble/0” (POST)
                1. You should do that using AJAX
                2. The server should keep counting how many users gambled on each number 0 or 1
            ii. The server should respond with the following JSON: {“zeros”:<numberOfZeros>,”ones”:<numberOfOnes>} the client should announce if the user won/lost/tie and how many users chose each number by adding text/HTML into the screen and hide the “0” and “1” buttons.
        c. Button “1” means that the user choose “1”
            i. You should do exactly the same as “0” but send “/gamble/1”(POST) instead.
        d. Button “new game” that resets the game
            i. Reset the number of zeros and ones users have chose so far and hide the “0” and “1” buttons.
            ii. You should let the server know by sending “/gamble/reset” (DELETE)
    c. In general, your main node.js file is **main.js** that requires hujiwebserver
        i. Call the right .use()s for each command mentioned above
        ii. Start your server on port 8081
        iii. Use one global variable **var gambling = {ones:0,zeros:0};** to keep the latest score

3. Comments & Submission
    a. The user interface of binary.html is up to you, but it should be intuitive for anyone to use it
    b. **Submission Date:** 29/01/2017 23:55
    c. You can do it in pairs. Each student should submit their own work.
    d. Submit **fullName.ID9digits.ex4.zip** which should include
        i. Ex3 files
        ii. main.js
        iii. **www** folder that consists of the html/css/js files
        iv. personal.txt:
            1. describe what was hard
            2. describe what was easy
            3. general comments about the course
        v. ex3bugs.txt
            1. any change you did to ex3 must be documented here

            a. you should describe the files/lines that were changed and why

    e. To be capable to perform this ex you should have your Ex2 knowledge. You should understand how to use your Ex3 (and fix it in case of bugs) and you should learn AJAX.

4. Good luck!!!