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This assignment is due on 28 March 2020

You must submit according to the instructions by the word. Please make sure you also **name your files correctly.**

Please submit a single ZIP for each assignment. Handwritten submissions and proprietary formats (e.g. Pages or MS Word) will not be accepted. You will need to include the files as instructed in the ZIP package.

Lab 7: Javascript & More

1. Task 1, Magic Box

    Your task here is to make a magical box. You will need to make the box grow bigger by clicking it, and then smaller by clicking it again.

    1. Create a folder called `task1`. The following steps need to be carried out inside this folder.

    2. Create a new HTML file named `index.html`, and inside it **draw a solid RED `div` in the centre** measuring `100pt` to `100pt`. You will need to make sure that it is both Red and in the Centre! (Hint: create a `style.css` for this)

    3. Give your red box a cool name like '`magic_box`'.

    4. Create a new Javascript file named `control.js`, attach `control.js` to the `head` section of `index.html`

    5. Inside `control.js` write the necessary code to make `magic_box` 4x bigger by clicking it the 1st, 3rd, 5th, … times. Make it 4x smaller by clicking it the 2nd, 4th, … times. (Hint: implement a click counter for this)
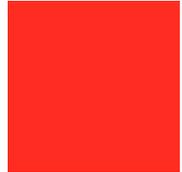
2. Task 2, Use SVGs inside your webpage.

    SVGs are different from bitmap, we get it. In reality, SVGs are much more similar to HTML files, it contains text describing what is drawn on screen.

    1. Create a folder called `task2`. The following steps need to be carried out inside this folder.

    2. Draw the image of a cloud using SVG drawer. You can use any SVG painter on the internet, save it as `cloud.svg` in `task2`.

    3. Create a new HTML file named `index.html`.

    4. Attach `cloud.svg` in your HTML file by using `<img>`, similar to what you've done with bitmap images.

3. Task 3: Extend your calculator

    Your task here is to extend the calculator you've implemented in Lab 6. More specifically, you are design-
    ing a button.

    1. Copy your lab6 `task3` folder here. The following steps need to be carried out inside this folder. It
        should contain your `index.html` and `control.js`.

    2. Design a new button using div. Make it pretty. Make sure you make the edges round using CSS, and
        make sure it is **RED**.

    3. Inside `control.js` write the necessary code, so that when you hover over the buttons, the button
        gradually changes its opacity to 0.5 in 200ms, and back to 1 when the mouse is away. You will need
        to use **animation**, failure to do so will lose you points.

        Hint the following code creates the hovering effect for a paragraph:

        ```
        $("p").hover(function(){
            $(this).css("background-color", "red");
            // replace the above line with animation
        }, function(){
            $(this).css("background-color", "green");
        });
        ```

4.   Submission format

- Your submission should be a single ZIP file named after your student ID. (e.g., for student ID 123456, I should submit 123456.zip)

- File structure inside the zip file:

  – `task1`

    – `index.html`

    – `control.js`

    – `style.css`

  – `task2`

    – `index.html`

    – `cloud.svg`

  – `task3`

    – `index.html`

    – `control.js`

- Failure to comply to the submission format will lose you all marks.