# BUW3213 Dynamic Web System Development

## Semester: September 2020

### Lab Test — 16-Dec-2020

### Duration: 90 minutes

Student ID: **B04180020**

Upon completing this lab test,

1. Create a zip file named `LabTest_B04180020.zip` to include the following two files:
   (a) `dialogue_B04180020.css`
   (b) `imageselector_B04180020.js`
2. Submit the zip file to `https://forms.gle/oxYgmKR8ER1jhLwq5`.

ATTEMPT *ALL* QUESTIONS (60 marks)

## QUESTION 1 30 marks

**HTML/CSS Coding**.

Write **only** the CSS code in `dialogue_B04180020.css` to add CSS rules to `dialogue_B04180020.html` to recreate the appearance of the screenshot as shown on the next page. Note that the screenshot is taken by using **Google Chrome** to emulate a device with a display resolution of **512** × **640**.

- **Modify** `dialogue_B04180020.css` and **submit only this file** for this question.
- Study the content of `dialogue_B04180020.html` carefully to find out how you should modify `dialogue_B04180020.css`.
  - Note that the same screenshot is shown at the bottom of the page for your ease of reference and comparison.
  - You can modify `dialogue_B04180020.html` during the development, but none of the modification will be considered and be marked.
- You are only allowed to code with **plain CSS rules**, and are **not allowed** to use any third-party CSS libraries.
- Write **valid code** that would pass the W3C CSS Validator (`https://jigsaw.w3.org/css-validator/`).

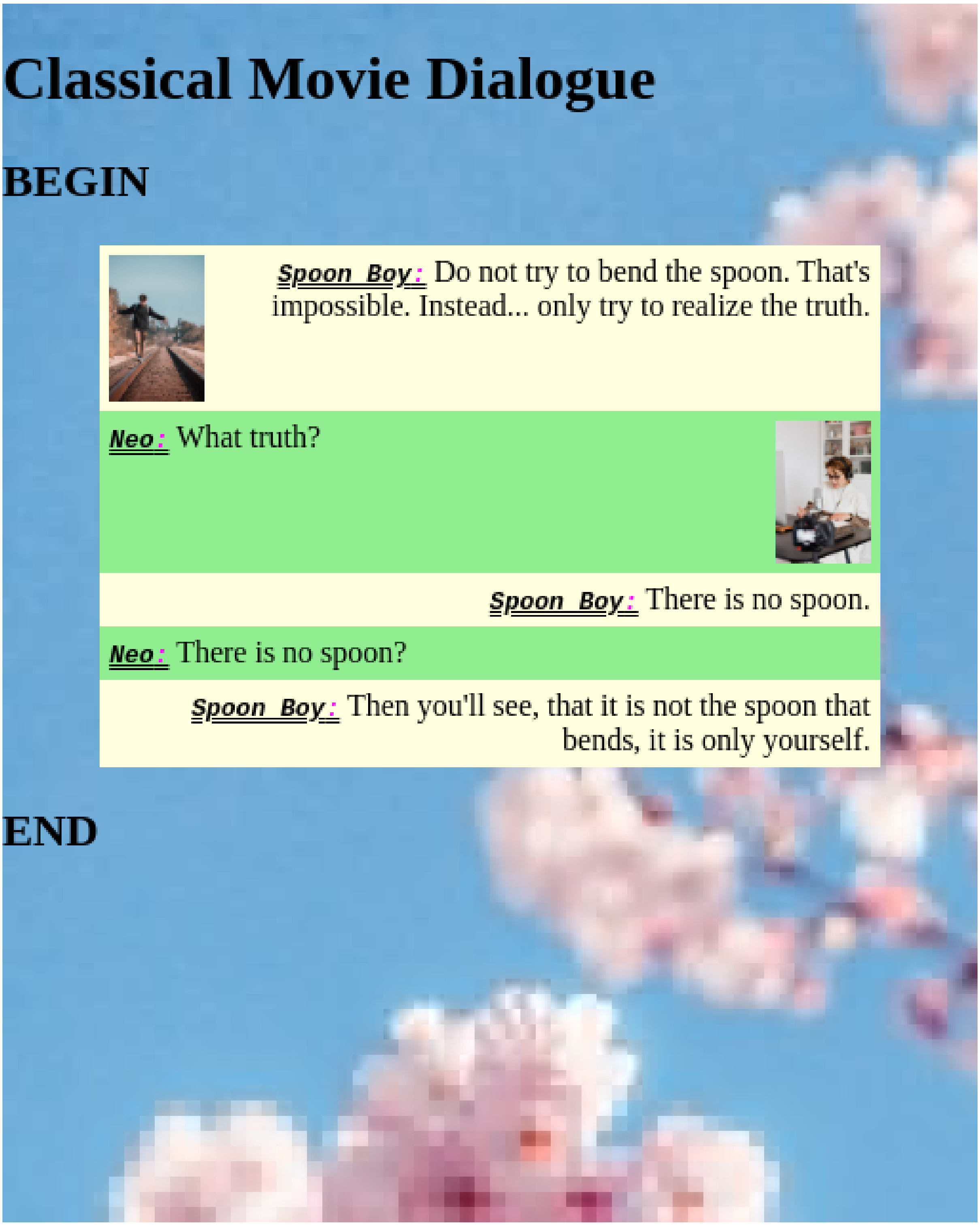
Some details about the desired appearance:

- All text uses default sizes and fonts, except otherwise specified.
- Take note of the following important properties from the appearance provided, and recreate them properly:
  - Horizontal alignment of the images and the texts
  - Colour of the background
  - Text decoration (capitalization, bold, italic, underline, overline, colour, etc.)
  - Extra character(s) added before and after some text
  - Any other feature you find important
- Set the background image of the page with the one from `images/q1_back.jpg`.
- The content area is **centered** within the page and occupies **80%** of the page width.
- The names of the characters are written in **monospace**.
- The extra character(s) before and/or after the characters' name is coloured in **magenta**.
- The widths of the two images are both **50px**.
- The width of the gap between the image and the text is **7px**.
- The background colours of the texts for each character are **lightyellow** (the first character) and **lightgreen** (the second character) respectively.

***Continued...***

- Each rectangular section allocated for each line in the dialogue should be set to be **high enough** to fit its content (character's name, text and possibly image). In other words, no two lines (especially the images) should "collide" together. (Hints: While it sounds difficult to do it, it is possible to include some CSS rules to accomplish this automatically.)
- To score high mark, be minimalist: Use as few CSS rules as you can, and do not include redundant CSS rules.

***Continued…***



# Classical Movie Dialogue

## BEGIN

**Spoon Boy:** Do not try to bend the spoon. That's impossible. Instead... only try to realize the truth.

**Neo:** What truth?

**Spoon Boy:** There is no spoon.

**Neo:** There is no spoon?

**Spoon Boy:** Then you'll see, that it is not the spoon that bends, it is only yourself.

## END

*Continued...*

## QUESTION 2 30 marks

**JavaScript Coding**.

Write **only** the JavaScript code in `imageselector_B04180020.js` to add event behaviour to `imageselector_B04180020.html`.

- **Modify** `imageselector_B04180020.js` and **submit only this file** for this question.
- Study the content of `imageselector_B04180020.html` carefully to find out how you should modify `imageselector_B04180020.js`. You can modify `imageselector_B04180020.html` during the development, but none of the modification will be considered and be marked.
- You are only allowed to code in **strict-mode JavaScript** and **are not allowed** to use any third-party JavaScript libraries.

The page contains a "Candidates" area with six images, a "Favourites" area, and an "Actions" area.

a) When one of the images in "Candidates" is clicked:

1. That image **will be moved to the rightmost / bottommost of the "Favourites" area**.
2. That image should be **shown with a width of 256px** in "Favourites". Find a way to do this.
3. A bullet item is **appended** to the end of the list in the "Actions" area indicating this, with **text "Favourite: [*image-name*]"**. The image name should be obtained from the `alt` attribute of the `img` element for that image.

b) When one of the images in "Favourites" is clicked:

1. That image **will be moved to the rightmost / bottommost of the "Candidates" area**.
2. That image should be **shown with a width of 128px** in "Candidates". Find a way to do this.
3. A bullet item is **appended** to the end of the list in the "Actions" area indicating this, with **text "Candidate: [*image-name*]"**. The image name should be obtained from the `alt` attribute of the `img` element for that image.

c) When the button `[Reset List!]` is clicked:

1. Move **all images from "Favourites" back to "Candidates"**. Note that these images must be moved to the rightmost of the "Candidates" **in the same order**. (Instead of rearranging the images back to the initial order.)
2. Each image should be **shown with a width of 128px**.
3. The list in **"Actions" should be cleared**.

d) Nothing should happen when the user clicks on any other content on the page.

Some DOs and DON'Ts:

- Move images by ONLY manipulating the order of elements in the DOM.

***Continued...***

- You are NOT allowed to move the images by manually setting x/y positions of the elements.
- You are NOT allowed to use the `innerHTML` property in this question.

The following screenshots show the appearance of the pages after performing various actions.

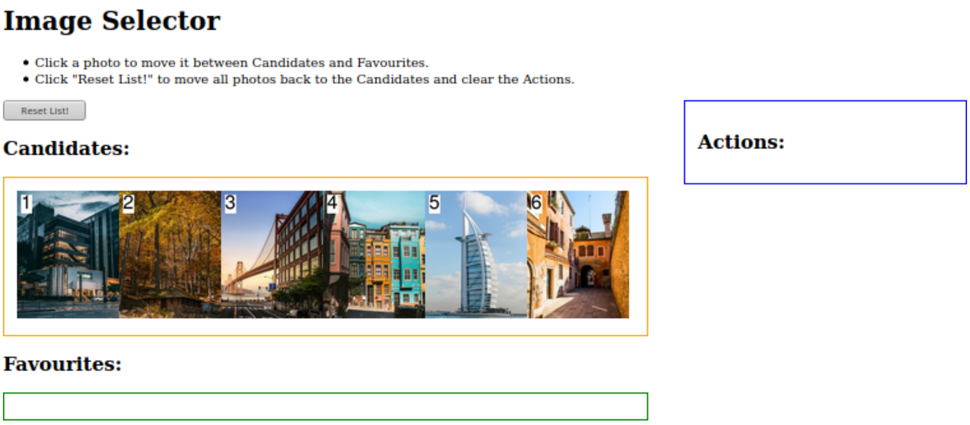


Image Selector

- Click a photo to move it between Candidates and Favourites.
- Click "Reset List!" to move all photos back to the Candidates and clear the Actions.

Candidates:

Favourites:

Actions:

Screenshot #1: Initial Appearance.

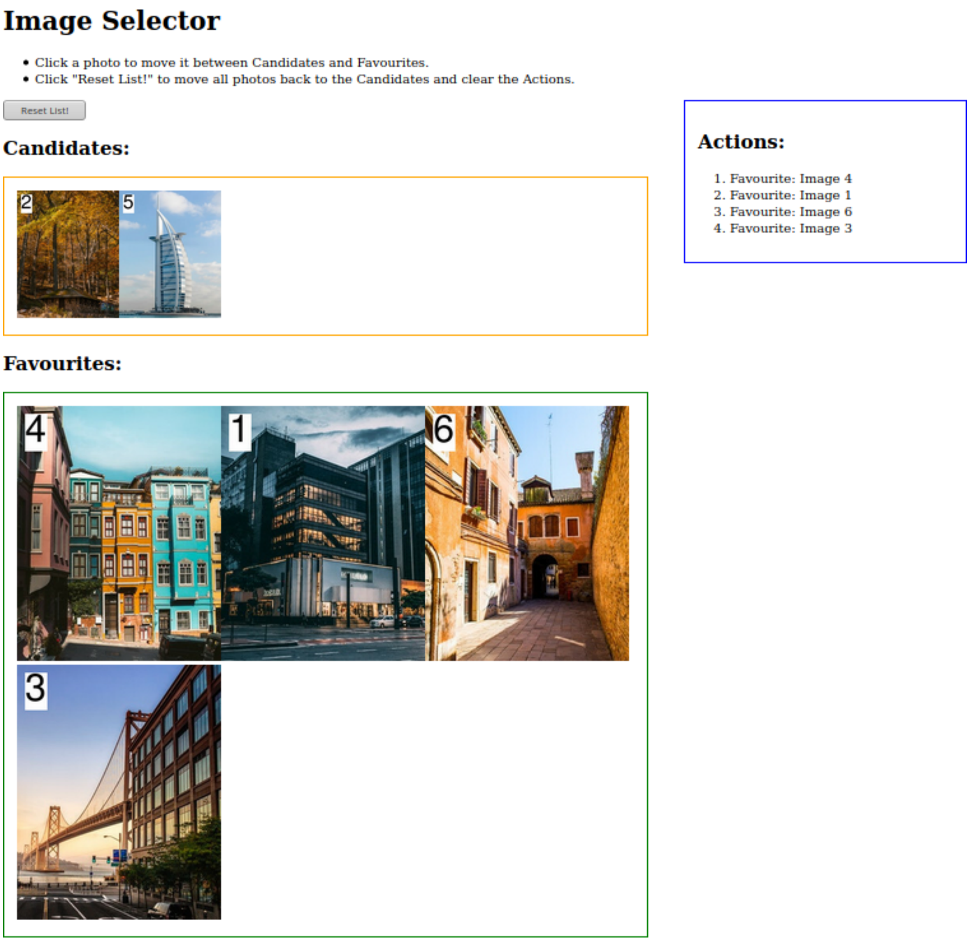


Image Selector

- Click a photo to move it between Candidates and Favourites.
- Click "Reset List!" to move all photos back to the Candidates and clear the Actions.

Candidates:

Favourites:

Actions:

1. Favourite: Image 4
2. Favourite: Image 1
3. Favourite: Image 6
4. Favourite: Image 3

Screenshot #2: After clicking image 4, image 1, image 6 and image 3 in order.

*Continued. . .*

Note the positions of the images and the “Actions” area.

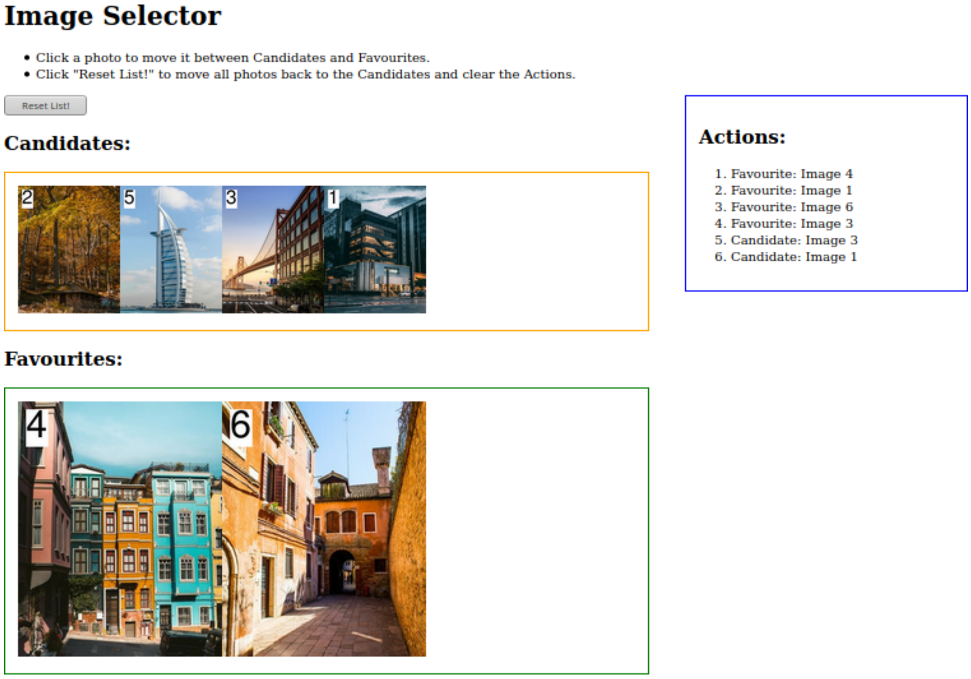


Image Selector

- Click a photo to move it between Candidates and Favourites.
- Click "Reset List!" to move all photos back to the Candidates and clear the Actions.

Candidates:

Favourites:

Actions:

1. Favourite: Image 4
2. Favourite: Image 1
3. Favourite: Image 6
4. Favourite: Image 3
5. Candidate: Image 3
6. Candidate: Image 1

Screenshot #3: After clicking (in this order) image 3 and image 1 in order.

Note the positions of the images and the “Actions” area.

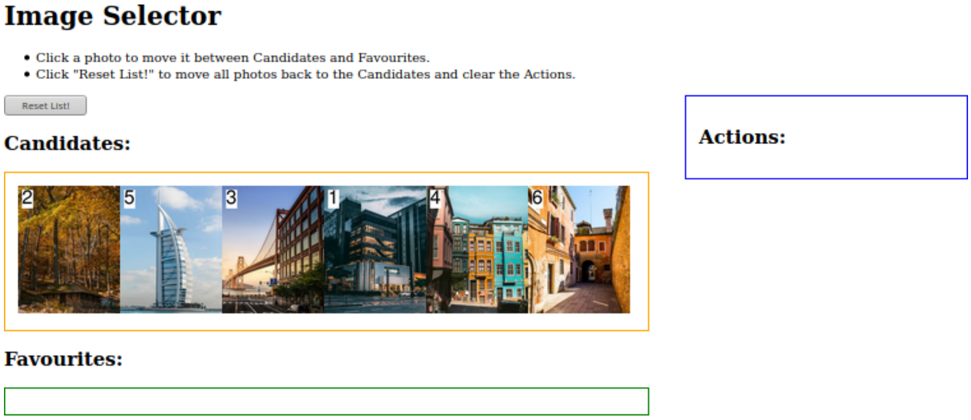


Image Selector

- Click a photo to move it between Candidates and Favourites.
- Click "Reset List!" to move all photos back to the Candidates and clear the Actions.

Candidates:

Favourites:

Actions:

Screenshot #4: After clicking the [Reset List!] button.

Note the positions of the images and the “Actions” area.

**END OF PAPER**