

Exercise 4

1. Develop a simple JavaScript program to let the user input their name and age, and to display a welcome message **both on the webpage and the console**. The expected user interfaces are as follows:

這個網頁顯示

Please input your name:

這個網頁顯示

Please input your birth year:

On the web page:

Hello, Ohtani !
You are 30 years old!

In Console:

```
Hello, Ohtani! ex-4-1.html:34  
You are 30 years old! ex-4-1.html:38
```

If the age is 1 (birth year is 2023), the result should be:

Hello, Kid !
You are one year old!

```
Hello, Kid! ex-4-1.html:34  
You are one year old! ex-4-1.html:41
```

If the value of age is not a valid number (including age 0), the error message should be displayed both in a popup window and in the console:

這個網頁顯示

Your input is incorrect!

確定

Hello, IU!

Your input is incorrect!

The web page should also show a message: "Your age is a mystery!".

Hello, IU !
Your age is a mystery!

Other Requirements:

- (1) In the welcome message, the user's name should be displayed in "Firebrick" color and with thick (粗體) characters.
- (2) The user's age should be displayed in "Navy" color and with an underline (底線).
- (3) The font (字型) is set to "Helvetica".

Hints:

- Please use the `` tag and declare **class selectors** to change the styles of *name* and *age*.
- CSS properties used on this page include *font-family*, *font-weight*, *color*, and *text-decoration*.
- Please study how to get "this year": https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Date.
- Do not forget to use `console.log()` to output messages in the console.

2. Develop a JavaScript program that displays a "square" composed of images of assigned or random Pokemons based on the given side length. The expected user interfaces are as follows:

這個網頁顯示

Please input the Pokemon you like
(1=pikachu, 2=bulbasaur, 3=charmander, 4=squirtle, 5=random):

確定

取消

Show the question: "Please input the Pokemon you like (1=pikachu, 2=bulbasaur, 3=charmander, 4=squirtle, 5=random):" with default value 1.

這個網頁顯示

Please input the side length (≥ 1 and ≤ 10):

確定

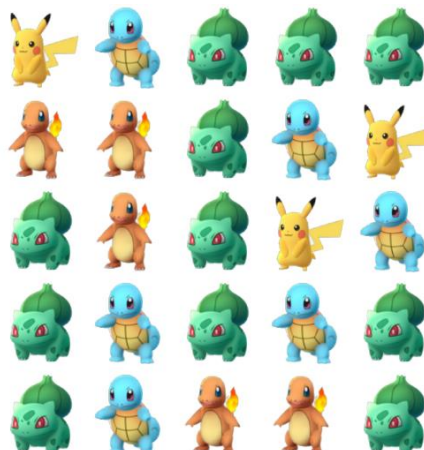
取消

Show the question: "Please input the side length (≥ 1 and ≤ 10):" with default value 5.

If the user chooses 1~4, the square is composed of repeated images of the assigned Pokemon:

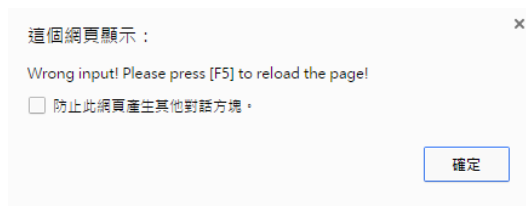


If the user chooses 5 (i.e., random), the square comprises random images of Pokemons.



If the user inputs a wrong data, please show an alarm message "**Wrong input! Please press [F5] to reload the page!**" in a popup window.

(Wrong data: not 1~5 for the first question, and not 1~10 for the second question)



Note that the size of Pokemon images should be set to 100(px)x100(px).

The file names of Pokemon images are pikachu.png, bulbasaur.png, charmander.png, and squirtle.png.

Hint:

- Use *Math.random()* and *Math.floor()* to generate random numbers.

https://www.w3schools.com/jsref/jsref_random.asp

https://www.w3schools.com/jsref/jsref_floor.asp

Bonus

Please add **continuous animation effects** to the displayed Pokemon images: making each Pokemon image **bounce up and down** (about 20px). Please also make each Pokemon image start its animation with a different delay time (0 second – 1 second) to create a more dynamic visual effect.

Hint:

- @keyframe: https://www.w3schools.com/cssref/css3_pr_animation-keyframes.php
- transform: https://www.w3schools.com/cssref/css3_pr_transform.php
- translateY: <https://developer.mozilla.org/zh-CN/docs/Web/CSS/transform-function/translateY>
- animation-delay: https://www.w3schools.com/cssref/css3_pr_animation-delay.php