

# Lab 2

# JavaScript Basics

*CSCI2720 Building Web Applications*

## CSE account for students

- CSE account is provided for using lab computers during class for all non-CSE students
- You can use it during this semester, and files on Desktop will be retained throughout
- *For CSE account issues, please contact admin @SHB1001, or email [techteam@cse.cuhk.edu.hk](mailto:techteam@cse.cuhk.edu.hk) using your @cse or @link account*

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
THE CHINESE UNIVERSITY OF HONG KONG  
USER ACCOUNT MEMO

NAME : CHAN Tai Man

DATE : 20 Sep 2022

Dear CHAN Tai Man

Here is your CSE course account information for CSCI2720:

-----  
USERNAME : s1155xxxxxx  
PASSWORD : abcd1234 [sample: 1l, 00]

← Look for this in your @link email

# Agenda

- Using the console
  - Simple arithmetic
  - Arrays
  - Arrow functions
- A simple page with scripts
- Events

## Using the console

- For consistency, we will use Google Chrome for our development use
- Learn to start the console in Developer Tools
  - Windows: *Ctrl+Shift+J*
  - Mac: *Command+Option+J*
  - Check this out:  
<https://developers.google.com/web/tools/chrome-devtools/shortcuts>
- To test JS code, you can run directly in this console, or output debug messages with **console.log(...)**

## Task 1.

### Simple arithmetic

- Try this code in the console

```
{  
  let x = prompt("What is your age?");  
  let y = new Date().getFullYear();  
  let z = y - x;  
  alert("I guess you were born in "+z);  
}
```

- Can you make this program better by judging about the date too?

- You may find this useful:

[https://www.w3schools.com/js/js\\_dates.asp](https://www.w3schools.com/js/js_dates.asp)

## Task 2.

## Arrays

- Given this array:  

```
let a = ["red", "pink", "green"];
```
- Using `.splice()`, delete "pink" and add "orange" and "yellow"
  - How? See:  
[https://www.w3schools.com/jsref/jsref\\_splice.asp](https://www.w3schools.com/jsref/jsref_splice.asp)
- Ask the user for one extra color name and store it at the end of the array
- How can you sort the array and store results in another variable `b`?
- Print the array using a for...of loop, using `document.write()` and `<br>`

*Task 3.*

Arrow  
functions

- A simple arrow function looks like this:

```
let hello = () => alert("Hello!");
```

- Convert the following function `check()` into an arrow function of *one line*:

```
function check(year) {  
  if (year>3)  
    return true;  
  else  
    return false;  
}
```

### *Task 4.*

### A simple page with scripts

- For most of the case, you use JS with HTML/CSS
- [codepen.io](https://codepen.io) is one easy platform for trying and development
  - You may try using plain files and `<script>` too
- Now, create a new codepen and set up a simple HTML page containing:
  - `h3`
  - `p`
  - `input type=text`
  - `button type=button`



### Task 4.

A simple  
page with  
scripts

- Give a good **id** for each HTML element
  - Style them in the CSS section
- In the JS section, see if you can obtain the element using `document.getElementById()` or `document.querySelector()`
  - Try that by outputting `.innerHTML` of the selected element to console
  - Codepen console can be found in the link at the page bottom
  - After editing some code, the page (and script) can be reloaded if you click in the preview area



## Task 4.

## Events

- Still using the same page, set up this *event*:
  1. If the user clicks on the button
  2. Copy the contents from the input box
  3. To the paragraph
  4. Then change the paragraph background color to yellow



## Submission

- No submission is needed for labs
- What you have done for this lab may be useful for your assignment(s)
- **Please keep your own file safely**