ISD: Introduction Software Developtment

Tu Phung: **Taking note.**

Haaga-Helia

ISD
INTRODUCTION SOFTWARE DEVELOPTMENT

- Content:
    1. HTML
    2. CSS
    3. Java
    4. …

HTML

- HTML is the standard markup language for Web pages.
- With HTML you can create your own Website.
- We need to know the format and syntax.

Format HTML

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <link rel="stylesheet" href="file.css">    ➔ link to file CSS.
    <title> Titles </title>    ➔ the Titles show on the TAB
  </head>
  <body>
          <img class="Name" src="picture" alt="word describe">    ➔ add the image with class "Name"
          <a href="file.html"> Word/Image showed</a>    ➔ use for link to another html file
          <h1> </h1>   ➔ default heading (from h1…h6)
          <ul>    ➔ under list make the list, same with <ol> 'order list'
              <h2> <li>  </li> </h2>  ➔ symbol for every rows.
          </ul>
<section class="Name1">  ➔ define the section for using different class
          <p> ➔ paragraph default
                <br>  ➔ break the row.
          </p>
</section>

  </body>
</html>
```
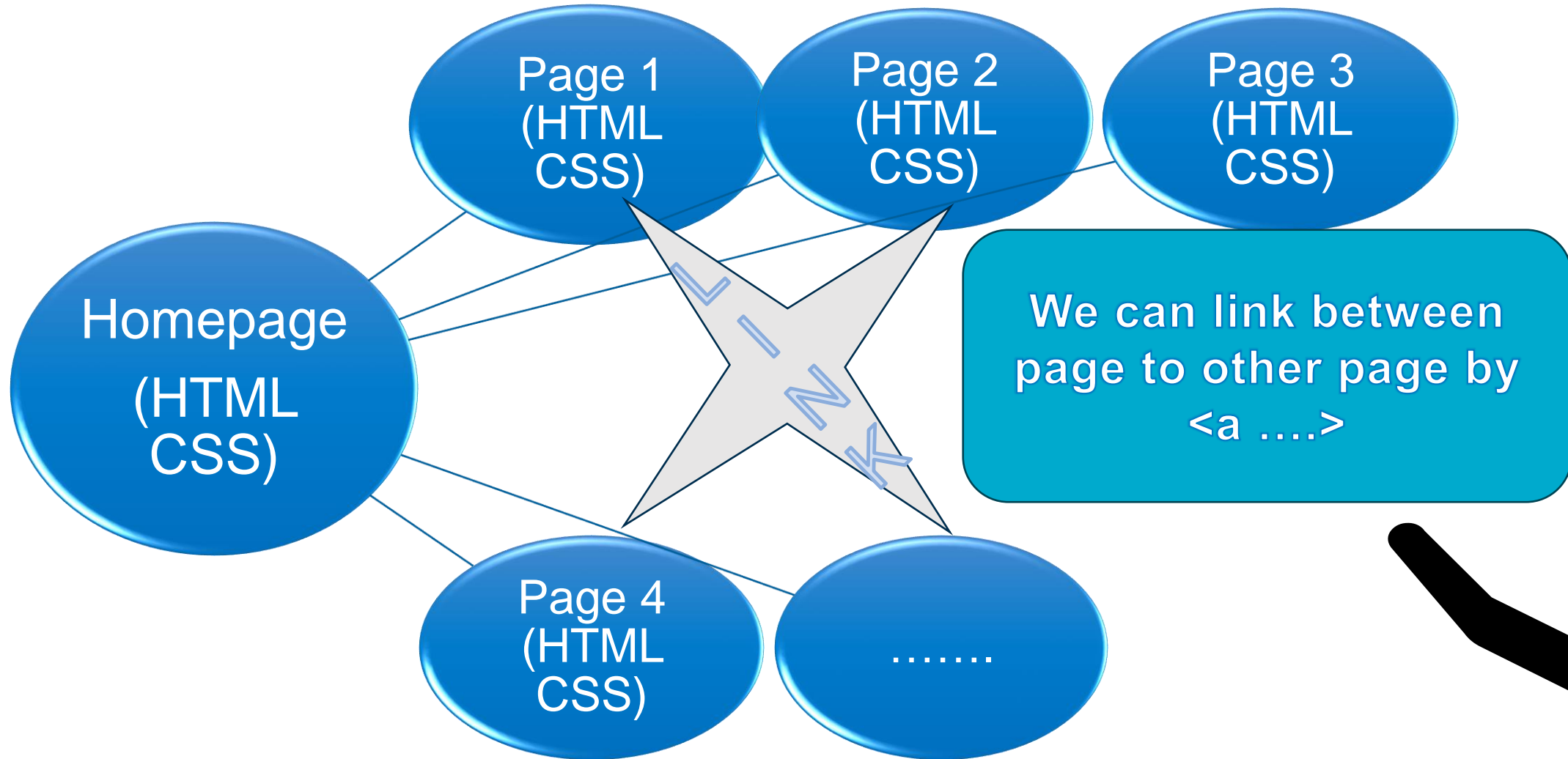
Haaga-Helia

CSS: describes how HTML elements should be displayed.

abc {

color: ...; background-color: ...; font-family: ...; font-size: ...px; width: ...px; height: ...px; text-align: ...; text-emphasis: ...; text-decoration: ...; border-radius: ...px; margin: ...px; margin-top: ...px; ...We can choose the which one be suitable for the format

}

abc ➔ can be body/ header/ h1/ h2/ h3/ p/ **.Name ➔ .Name is we defined in html file (<u>don't forget period</u>)**

Haaga-Helia

Algorithms

Page 1
(HTML
CSS)

Page 2
(HTML
CSS)

Page 3
(HTML
CSS)

Homepage
(HTML
CSS)

LINK

We can link between page to other page by <a ....>

Page 4
(HTML
CSS)

....

Haaga-Helia

Java

Variable (var ⇔ let)	If else	Loop (for, while, do while)	Function declare Function Constructor

let a = 0; -> integer

let b = 3.003; -> double

const c = 3.14; -> constant

let s = "string";->string

let array d =[1,2,3];

const array e = [1,2,3];

*When array declare as const, we can't assign the new value for array "e" => can't do e = [4,5,6];

If(condition 1){

   operarting 1;

} else if (condition 2){

   operarting 2;

}else{

   operarting 3;

}

for (let i =0; i<length; i++){

   operating;

}

do {} while(condition);

➔ Use for checking input before continue.

while(condition){}

function **product** (a,b){

   return a*b;

}

const product =

new **Function**('a', 'b', 'return a * b');

Popular Command

```
console.log("sentence" + variable);=> print into console window.

Math.floor(numb).toFixed(2); =>round down and take 2 digits after colon.

Math.ceil(numb); => round up.

Math.round(numb); => round to the nearest integer number.

Math.random(numb); => random from 0 to 1;

alert('Please enter numeric values only'); =>alert when match condition.

!isNaN(numb);=>check input/variable is number or not.

Number.isInteger(numb);=> check numb is Integer. - Number.isFloat(numb);

parstFloat(numb); => transform input to Float - parstInt(numb);

document.write("<table>");//showing the table in HTML format – "<br>…"

var Action = prompt("Are you human?");=>show input window on the screen

var lowerAction = Action.toLowerCase();=>transform lowercase the input – toUpperCase()

window.onload = todo;=>call function todo when the page is load fully.

console.log(`"After" ${i} week ${original.toFixed(1)} kg<br>`);=>take value into backtip

console.log("\"After\"" + i + "week" + original.toFixed(1) + "kg<br>");=> normal way.

element = words.charAt(i); => take the letter at i position of string words
```

```
let encoded = window.btoa("Hello World!");// transform to encodes a string in base-64.
let decoded = window.atob(encoded);//method decodes a base-64 encoded string.
```

const myWin = **window.open**("", "", "left=100, top=350, width=500, height=900");}

myWin.blur();// allowing other windows or elements to become active.

myWin.focus();// the active window in the browser

Popular Command

```
<button onclick="openWin()">Open "myWindow"</button>

<button onclick="closeWin()">Close "myWindow"</button>

let myWindow;function openWin() {myWindow = window.open("", "", "width=200,height=100");}

function closeWin() {myWindow.close();}

function myFunction() { let text = "Press a button!\nEither OK or Cancel.";

    if (confirm(text) == true) {text = "You pressed OK!";} else {text = "You canceled!";}

    document.getElementById("demo").innerHTML = text;}

let url = window.document.URL;//get the current url. - let url = document.URL;
```

localStorage.setItem(*key, value*);//Save Data to local Storage.

let lastname = **localStorage.getItem**(*key*);//Read Data from local Storage.

localStorage.removeItem(*key*);//Remove key only - **localStorage.clear**(); //Remove all

```
<p><button onclick="clickCounter()" type="button">Click me!</button></p>
<p>Number of clicks:</p> <p id="demo"></p>

clickCounter();
function clickCounter() {
    if (localStorage.clickcount) {
        localStorage.clickcount = Number(localStorage.clickcount)+1;
    } else {localStorage.clickcount = 1;}
    document.getElementById("demo").innerHTML = localStorage.clickcount;}
```

Apply for count the click or summarize visiting.

pageVisitCounter();// Call pageVisitCounter function when the page loads

function pageVisitCounter() { // Check if localStorage contains visitCount

  if (localStorage.**visitCount**) { // Increment visitCount if it exists

  localStorage.visitCount = Number(localStorage.visitCount) + 1; } else {localStorage.visitCount = 1; }

document.getElementById("visitCount").innerHTML = localStorage.visitCount; } //Display.

```
<button onclick="myFunction()">Load new document</button> //load to the new page.
function myFunction() {location.assign("www./TuPhung/");}//add history.
location.reload() //reload the current document.
function myFunction() {location.replace("https://www.w3schools.com");}//don't add history
```

```
<button onclick="openWin()">Open "myWindow"</button>
<button onclick="moveWin()">Move "myWindow"</button>
let myWin;
function openWin(){myWin = window.open("", "", "width=400, height=400");}
function moveWin(){myWin.moveBy(250, 250); myWin.focus();} - myWin.moveTo(500, 100);
function myFunction() {window.open("https://www.w3schools.com");}//open new tab no history
function myFunction() {window.scrollBy(0, 500);}//scroll 500 vertical (y).
function myFunction() {parent.document.body.style.backgroundColor = "blue";}//parent page.
function myFunction() {location.href = "https://www.w3schools.com";}//go to link
function myFunction() {location.href = "mailto:someone@example.com";}//go to email
window.print();//call to print as ctrl+P
location.pathname;//get the path of url. Protocol + domain (host) + pathname = URI
navigator.cookieEnabled;
navigator.geolocation.getCurrentPosition(function(position) {
        var latitude = position.coords.latitude; //vĩ độ
        var longitude = position.coords.longitude; });
let browserlang = window.navigator.language; let webLang = document.documentElement.lang;
```

```javascript
document.activeElement.tagName;//last click on Element "body, head, button, select"
const att = document.createAttribute("class");
const comment = document.createComment("My personal comments");
const para = document.createElement("p");
textNode = document.createTextNode("Hello World");
document.body.appendChild(para);
document.body.innerHTML = "Some new HTML content";
document.body.style.backgroundColor = "yellow";
document.designMode = "on";//can edit the document or webpage.
let uri = document.documentURI;// preferred over document.url more accuracy & reliable .
```

let myDomain = document.domain; //donmain

let num = document.embeds.length;//calculate the total embeds.

document.designMode = "**on**"; // Execute command if user presses the **SHIFT** == 16, "bold "

function myFunction(event) { if (event.keyCode == 16) {document.execCommand("bold"); }}

let id = document.**forms**[index].id; //index form. - **let id = document.forms.item(1).id;**

```javascript
document.getElementById("demo").style.color = "red";
const collection = document.getElementsByClassName("example color");
```

HTML

```javascript
const collection = document.getElementsByTagName("li")[0];// element li. [0] for 1st index.
const collection = document.getElementsByTagName("*");// all elements.
document.getElementsByTagName("p")[0].innerHTML = "Hello World!"; //the first <p>
document.images.length;//calculate the total images.
//Loop over all <img> elements, and output the URL (src) of each:
const myImages = document.images;
let text = "";
for (let i = 0; i < myImages.length; i++) {text += myImages[i].src + "<br>";}
let date = document.lastModified; - const date = new Date(document.lastModified);
let numblength = document.links.length;
let url = document.links[index].href; - let url = document.links.item(index).href;
document.open();document.write("<h1>write some text</h1>");document.close();
document.removeEventListener("mousemove", myFunction);
document.scripts.length; - document.scripts[0].text;
document.writeln("Hello World!");  ⇔ document.write("Hello World!<br>");
let numattr = document.getElementById("myImg").attributes.length;        //HTML include style
document.getElementById("demo").innerHTML = document.getElementById("myP").innerHTML;
document.getElementById("demo").innerHTML = document.getElementById("myP").innerText;
```

HTML

Haaga-Helia

```html
<abbr title="World Health Organization">WHO</abbr> // mouseover show the full text.
<dfn><abbr title="HyperText Markup Language">HTML</abbr></dfn>
<video width="320" height="240" controls><source src="movie.mp4" type="video/mp4"></video>
<audio controls autoplay><source src="audio/1.mp3" type="audio/mpeg"></audio>
<p>Here is a quote from WWF's <a href="http://www.google.com">website</a>:</p>
<blockquote>For 50 years… </blockquote>
<table><caption>Subject Table</caption><tr><th>Month</th><th>Savings</th></tr></table>
<p><cite>The Scream</cite> by Edward Munch. Painted in 1893.</p>
<ul>
  <li><data value="21053">Cherry Tomato</data></li>
  <li><data value="21054">Beef Tomato</data></li>
  <li><data value="21055">Snack Tomato</data></li>
</ul>
<details> //Using for hidden the content, just show the title.
  <summary>Epcot Center</summary>
  <p>content will be hidden.</p>
</details>
```

HTML

Haaga-Helia

```
<embed type="text/html" src="snippet.html"  width="500" height="200"></embed>
<iframe src="snippet.html" width="500" height="200"></iframe>
<object type="text/html" data="snippet.html" width="500" height="200"></object>
//3 ways display the page as FRAME.
<form action="/action_page.php">
 <fieldset>
  <legend>Personalia:</legend>
  <label for="fname">First name:</label>
  <input type="text" id="fname" name="fname" required><br><br>
  <label for="lname">Last name:</label>
  <input type="text" id="lname" name="lname"><br><br>
  <label for="email">Email:</label>
  <input type="email" id="email" name="email"><br><br>
  <label for="birthday">Birthday:</label>
  <input type="date" id="birthday" name="birthday"><br><br>
  <input type="submit" value="Submit">
 </fieldset>
</form>
```

```html
<input type="text" id="myText" value="A text field">
<button type="button" onclick="getFocus()">Get focus</button>
<button type="button" onclick="loseFocus()">Lose focus</button>
function getFocus() {document.getElementById("myText").focus();} //got to active id.
function loseFocus() {document.getElementById("myText").blur();}
const collection = document.body.children;//all body's properties
document.getElementById("myP").contentEditable = true;// edit content at myP
const element = document.getElementById("myP").getAttribute("class");//return name class.
```

```html
<button onclick="myFunction('myList1','myList2')">Compare List 1 and 2</button> //Return false
<button onclick="myFunction('myList1','myList3')">Compare List 1 and 3</button> //Return true
List 1: <ul id="myList1"><li>Water</li><li>Milk</li></ul>
List 2: <ul id="myList2"><li>Coffee</li><li>Tea</li></ul>
List 3: <ul id="myList3"><li>Water</li><li>Fire</li></ul>
<p id="demo"></p>
function myFunction(x,y) {
  var item1 = document.getElementById(x).firstChild; //1st property
  var item2 = document.getElementById(y).firstChild; //1st property
  var x = item1.isEqualNode(item2);
  document.getElementById("demo").innerHTML = x;}
```

Apply for go to search on fill the form

```
array.push(name);=>add the name to the last row of array.

var maxAge = Math.max(...ages); Math.max.apply(null, ages); – Math.min(... ages);

!lotteryNumbs.includes(randomNumb);=>check randomNumb belong to array lotteryNumbs.

Numbs.sort(function(a, b) {return a - b;}); => sort by call function for Numberical value

Numbs.sort()=>sort by Numberical or String.

var NumbsString = Numbs.join(" ");=> transform from Array to String.

bloodTypes.forEach(function(bloodType) {}); => forEach for array bloodTypes

Object.keys(bloodTypeCounts).forEach(function(bloodType) {});=>get value from
bloodTypeCounts[bloodType].count ➔ bloodTypeCounts is Object.=>Viope-Chapter6 09.05

bloodTypeCounts = {"A+": {count: 4, value: 123}, "O-": {count:2, value:323}, "AB+":
{count:4,value:434}, "O+": {count:2,value:737}}; forEach(bloodType => {});

***If we define object like {"A+" : {count: {time1: 4, time2: 6}}, "O-"...} => we will call
as bloodTypecounts["A+"].count.time1

let paragraph = document.createElement("p"); // Create a new paragraph element wiht <p>

paragraph.textContent = array[i]; // Set the text content of the paragraph

document.body.appendChild(paragraph); // Append the paragraph to the body of the document
```

array.**push**(name);=>add the name to the **last** row of array. <mark># </mark>array.**pop(); => delete last.**

var maxAge = **Math.max(...ages**);=> max value of array ages. – Math.min(...ages);

!lotteryNumbs.**includes**(randomNumb);=>check randomNumb belong to array lotteryNumbs.

Numbs.**sort**(<u>**function(a, b) {return a - b;})**</u>**; => sort by call function for Numberical value**

Numbs.**sort()=>sort by Numberical or String.**

var NumbsString = Numbs.**join(" ");**=> transform from Array to String.

bloodTypes.forEach(function(**bloodType**) {}); => forEach for array **bloodTypes**

Object.keys(bloodTypeCounts).forEach(function(bloodType) {});=>get value from
bloodTypeCounts[bloodType].count ➔ bloodTypeCounts is Object.=>Viope-Chapter6 **09.05**

bloodTypeCounts = {"A+": {count: 4, value: 123}, "O-": {count:2, value:323}, "AB+":
{count:4,value:434}, "O+": {count:2,value:737}};

***If we define object like {"A+" : {count: {time1: 4, time2: 6}}, "O-"...} => we will call
as **bloodTypecounts["A+"].count.time1**

let paragraph = document.createElement("**p**"); // Create a new paragraph element wiht **<p>**

paragraph.textContent = array[i]; // Set the text content of the paragraph

document.body.appendChild(paragraph); // Append the paragraph to the body of the document

Popular Command

```javascript
array.reverse(); => array.sort() just follow from a->z => so we use reverse for Z-A
if (name.trim() !== ""){names.push(name.trim());}//not empty => remove the spaces=>add last
const image = document.createElement("img");
image.src= "https://upload.wikimedia.org/wikipedia/230px-Snow_flake.svg.png";
document.getElementById("images").appendChild(image);
let currentYear = new Date().getFullYear(); - getFMonth() – getDay – getDate…
var firstThreeCharacters = name.substring(0, 3);➔ start from index 0 with 3 steps
dd.MM.yyyy var day = parseInt(dateText.substr(0, 2)); // start from index 0 with 2 steps
    var month = parseInt(dateText.substr(3, 2)) - 1; // Jan is 0 so need to minus 1
    var year = parseInt(dateText.substr(6, 4));
var dayOfWeek = new Date(year, month, day).getDay(); =>dayOfWeek === 0 is Sunday
var parts = dateText.split("."); parts[0] = dd, parts[1]-1 = MM, parts[2] = yyyy.
let jsonString = '{"name": "John", "age": 30, "city": "New York"}';
let jsonObject = JSON.parse(jsonString);
```

Popular Command

string.at(0) or string.at[0] or string.chartAt(0) -> -1 === (string.length-1)

string.charCodeAt(0) or string.codePointAt(0) => Returns the Unicode value

string.concat(*string1, string2, ..., stringX*) => join strings together.

string.endsWith("abc");=>check condition for ends of string -> return true or false.

string.endsWith("abc",length); => abc is end word at the **index length**, it means abc **is not** the end word of string,

string.fromCharCode(72, 69, 76, 76, 79); => HELLO, transform from Unicode value to Word.

string.includes(*searchvalue, start*); => check from index (start) of string. => True or False.

string.indexOf(*searchvalue, start);=> return the first match.*

string.lastIndexOf(*searchvalue, start); => return the last match.*

string1.localeCompare(string2);=> **string1** come **after** return **-1, before** return 1, same = 0

string.match("**abc**"); or string.match(**/abc/**); => return string "abc" if matched.

string.match(/abc/**g**); => return array abc,abc,abc… depend the times of matched.

string.match(/abc/g**i**);=> return array abc, Abc, ABC… depend the times of matched.

"01-07-2017".match(/^\d{2}-\d{2}-d{4}/);=> **/^** Start the searchvalue.

/^\d{2}.\d{2}.\d{4}/.test("31.07.2018"); => return to **true**.

***string*.padEnd(*length, string*);** => ex: 5.padEnd(4,"x") => 5xxx - ***string*.padStart(*length, string*);**

string.repeat(*count*);=> just repeat the string.

string.replace(*searchValue, newValue*); =>replace the first match.

string.replaceAll(*searchValue, newValue*);=> replace all match.

string.search(*searchValue*);=> return findex position at first match or -1 (not match)

string.slice(*start, end*);=>return string **without** etter at end => slice(-3); 3 last letters.

string.startsWith(*searchValue, start*)=> search string from "start index".

string.substr(*start, length*) or *string*.substr(*start*); => take the string from index start.

string.substring(*start, end*); => take from start to end-1, same with slice

➔but string.substring(-5); means start from 0. slice(-5) take 5 last letters.

string.to**Locale**LowerCase("language");->BCP 47 language tags "en/tr/de/es/fr/it/pt/ru/zh/vi/th"

string.toLowerCase();=>don't care about the language.

string.toString();=> **multiple or divide operators, Javascript understand as number.**

string.trim(); string.trimEnd(); string.trimStart();=>space between **2 words don't change.**

string.replace(/^\s+|\s+$/gm,''); ⇔ string.trim(); if we would like the keep 1 space only between two words, (/\s{2,}/gm,' ')

***string*.trim().replace (/\s{2,}/gm,' '); => keep 1 space between 2 words.**

```
const array = new Array(10); or Array(10); or array = [];(length = 0)
array.fill(value);=> fill value to all of elements. - array.fill(value,start);
const words = ['spray', 'elite', 'exuberant', 'destruction', 'present','spray'];
words.filter((word) => word.length > 6);//return Array ["exuberant", "destruction",…]
words.find((word) => word.length > 6);//return exuberant (1st element) - words.findLast
words.findIndex((word) => word.length > 6);//return 2 (1st index) – words.findLastIndex
words.flatMap((word) => (word.includes("eli") ? "Y" : word)); ->return new array new value.
words.Map((word) =>(word.includes("eli") ? "Y" : word)); -> create array of array.
const array = [1, 2, 3];
const mappedArray = array.map(x => [x, x * 2]);
console.log(mappedArray); // [[1, 2], [2, 4], [3, 6]]
const flatMappedArray = array.flatMap(x => [x, x * 2]);
console.log(flatMappedArray); // [1, 2, 2, 4, 3, 6]
console.log(Array.from('TMM', (x) => x + 'a'));// Expected output: Array ["Ta", "Ma", "Ma"]
words.lastIndexOf('spray');=>return last index – words.indexOf('spray'); =>return 1st index.
words.reverse();=>return the new reversed array.//words.shift(); delete 1st ⇔ words.slice(1);
```

```
// Creating an array-like object
const arrayLike = { 0: 'a', 1: 'b', 2: 'c', length: 3 };
// Using Array.from() with a mapping function to concatenate elements with 'a'
const concatenatedArray = Array.from(arrayLike, element => element + 'a');
console.log(concatenatedArray); // Output: ['aa', 'ba', 'ca']
let arr = [1, 30, 4, 21, 100000];arr.sort((a,b) => a-b);//sort by value, default string.
arr.some(element => {return element > 21});//return true. – arr.some(element => element>21);
```

Haaga-Helia

```
const arrays = [ 11 , 22, 33];
for (const key of arrays.keys()) {

        console.log(`Index ${key} at Value ${arrays[key]}`);}
for (const [index, array] of arrays.entries()) {

        console.log(`Index: ${index}, Element: ${array}`);
for (let i=0;i<arrays.length;i++){

        console.log(`Index ${i} at Value ${arrays[i]}`);}
arrays.forEach(function(array,index) {  //can use any words: element, position….

        console.log(`Index ${index} at Value ${array}`);});
arrays.forEach((array,index) => {  //2nd way.

        console.log(`Index ${index} at Value ${array}`);});
for (const element of arrays) {

        console.log(`Element: ${element}`);}
arrays.forEach(element =>  {

        console.log(`Element: ${element}`);});
```

Java Script with HTML

Get DATA from HTML

var **element** = document getElementById"myElement";

var **valueele** = **element**.value;

valueele = parseFloat(**valueele**);//parseInt

var elements = document.**getElementsByClassName**("myClass");

var element = document.**querySelector**("#myElement");//1st

var elements = document.**querySelectorAll**(".myClass");

Output to HTML

var pOutput = document.getElementById("pOutput");

pOutput.**innerHTML** = "Your email: " + txtGivenName + "." + txtSurname + "@myy.haaga-helia.fi";

window.**addEventListener**("click", function(){

document.getElementById("demo").innerHTML = "Hello World!";});

element.style.color = "red"; => change to style of element.

<button **onclick**="**myFunction**()">Open Window</button>

function myFunction() {const myWin = **window.open**("", "", "left=100, top=350, width=500, height=900");}

```
function listCoursesUsingAppendChild() {

    let answerDiv = document.getElementById("answer");

    answerDiv.innerHTML = ""; // Clear previous content


    courses.forEach(function(course) {

        let courseInfo = document.createElement("p");

        courseInfo.innerHTML = `

            Code:</strong> ${course.code}<br>

            Name:</strong> ${course.name}<br>

            Extent:</strong> ${course.extent}<br>

            Timing:</strong> ${course.timing}   `;

        answerDiv.appendChild(courseInfo); });}
```

Add the new line at ID "answer" not overwrite.
➔ **createElement: create 1 paragraph <p>**
➔ **createTextNote: create the sentences only.**

```
function listCoursesUsingInnerHTML() {

    let answerDiv = document.getElementById("answer");

    answerDiv.innerHTML = ""; // Clear previous content

    let coursesHTML = "";

    courses.forEach(course => {

        coursesHTML += `

            <p>

                Code:</strong> ${course.code}<br>

                Name:</strong> ${course.name}<br>

                Extent:</strong> ${course.extent}<br>

                Timing:</strong> ${course.timing}

            </p>

        `;});

    answerDiv.innerHTML = coursesHTML;}
```

Output at ID "answer" 1 time, because it overwrite

Haaga-Helia

constructor function

```
// Define the Country constructor function

function Country (countryName, countryPop, countryFinnish) {

    this.name = countryName;

    this.population = countryPop;

    this.finnish = countryFinnish; }

// Create instances for each country

var finland = new Country("Finland", 5501043, "Suomi");

 var sweden = new Country("Sweden", 10367232, "Sverige");

var norway = new Country("Norway", 5367580, "Norge");

 var denmark = new Country("Denmark", 5818553, "Danmark");)

=> sweden.name -> Sweden / Sweden.population -> 10367232.
```

```
let str = "Mr Blue has a blue house, blue hat, blue shoes, blue car, blue sky,

blue ocean, and blue eyes.";

let replacedCount = 0;

let res = str.replace(/\bblue\b/g, function(match) {

        replacedCount++;

        if (replacedCount === 1 || replacedCount === 4 || replacedCount === 7) {

            return "red"; }

        else { return match; } });

console.log(res);
```

Mr Blue has a red house, blue hat, blue shoes, red car, blue sky, blue ocean, and red eyes.

constructor function

```
function Person(first, last, age, eyecolor) {
    this.firstName = first;
    this.lastName = last;
    this.eyeColor = eyecolor;
}
//add new properties to objects (constructor func)
Person.prototype.nationality = "English";
```

let str = "Mr Blue has a **blue** house, blue hat, blue shoes, **blue** car, blue sky, blue ocean, and **blue** eyes.";

let replacedCount = 0;

let res = str.replace(/\bblue**\b/g**, function(match) {

    replacedCount++;

    if (replacedCount === 1 || replacedCount === 4 || replacedCount === 7) {

        return "red"; }

    else { return match; } });

console.log(res);

Mr Blue has a **red** house, blue hat, blue shoes, **red** car, blue sky, blue ocean, and **red** eyes.

Haaga-Helia

Object (function into)

```
let person = {
        firstName: "John",
        lastName: "Doe",
        age: 30,
howtodo: function() {
            return `
${this.firstName} ${this.lastName} with age ${this.age}
                `; } };
let result = person.howtodo();
 console.log(result); // Output: John Doe with age 30
```

```
let str = "Mr Blue has a blue house, blue hat, blue shoes, blue car, blue sky,
blue ocean, and blue eyes.";
let replacedCount = 0;
let res = str.replace(/\bblue\b/g, function(match) {
        replacedCount++;
        if (replacedCount === 1 || replacedCount === 4 || replacedCount === 7) {
            return "red"; }
        else { return match; } });
console.log(res);
```

Mr Blue has a red house, blue hat, blue shoes, red car, blue sky, blue ocean, and red eyes.

Haaga-Helia

Thank you!
Enjoying Coding like Playing Game!

Tu Phung

Haaga-Helia