WEB Design(front-end)

Level 2(កម្រិត២)

JavaScript & JQuery

• INTRODUCTION TO JAVASCRIPT

JavaScript ប្រភេទ Script Language មួយសម្រាប់ឱ្យយើងប្រើប្រាស់ភ្ជាប់ជាមួយនឹងHTMLដើម្បីធ្វើ ការបង្កើត Interactive Web page។ Script language គឺជាProgramming Languageដែលមានសមត្ថ ភាពលើសពីMarkup language (ដូចជា HTML,CSS) ដែលអាចធ្វើការឱ្យWeb pageមានលក្ខណៈ Dynamic។

-Dynamic web pageគឺមានFeatures ជាច្រើនដូចជា:

• ដំណើរការនៃProcessគណនាណាមួយ

• Pop-up message នៅក្នុង Input form ដើម្បីផ្ទៀងផ្ទាត់មើលទិន្នន័យដែលបញ្ចូលក្នុងForm

• ធ្វើឱ្យImageផ្លាស់ប្តូរនៅពេលយើងរំកិលMouseលើវា

• រូបភាពមានចលនាជាលក្ខណៈSlideshow animations...,

• JS FEATURES

-JavaScript Can Change HTML Content

-JavaScript Can Change HTML Styles (CSS)

-JavaScript Can Hide HTML Elements

-JavaScript Can Show HTML Elements

-JavaScript Can Change HTML Attribute Values

• JAVASCRIPT OUTPUT

- window. Alert()

- document. Write()

- innerHTML

ទីតាំងប្រើប្រាស់ JAVASCRIPT

- **JavaScript in <head>**

- **JavaScript in <body>**

- **External JavaScript**

• JAVASCRIPT VARIABLES

• There are 3 variable in JavaScript

1. Var

2. Let

3. Const

Always declare JavaScript variables with **var**, **let**, **or** **const**.
The **var** keyword is used in all JavaScript code from 1995 to 2015.
The **let and** **const** keywords were added to JavaScript in 2015.
If you want your code to run in older browser, you must use var.

• JAVASCRIPT FUNCTIONS

- JavaScript Function Syntax

```
function name(parameter1, parameter2, parameter3) {
  // code to be executed
}

Ex:

let x = myFunction(4, 3);   // Function is called, return value will end up in x


function myFunction(a, b) {
  return a * b;         // Function returns the product of a and b
}
```

- There are 3 more way to call function

```
<script>
    //A
    document.getElementById("btn1").addEventListener("click",function(){
        //execute
    });
    //B
    document.querySelector("#btn1").addEventListener("click",function(){
        //execute
    });
    //C
    document.getElementById("btn1").onclick=function(){
        //execute
    }
</script>
```

JAVASCRIPT CONDITIONAL STATEMENT

- ```
  if (condition) {
      // block of code to be executed  if the
  condition is true

  }
  ```

- ```
  If(condition){

        statement code;

  }else{

        statement code;

  }

  }
  ```

```
if (condition1) {
    //  block of code to be executed if
            condition1 is true
} else if (condition2) {
    //  block of code to be executed if the
            condition1 is false and condition2
is true
} else {
    //  block of code to be executed if the
            condition1 is false and condition2
is false
}
```

• JAVASCRIPT ARRAY

- ArrayគឺជាVariableពិសេសមួយដែលអាចសរសេរទុកទិន្នន័យបានច្រើន.
- Syntax: var obj=["value1", "value2", "value3",…]

EX:

var subject=["HTML","CSS","JavaScript","JQuery","PHP"];

var color = new Array("red", "blue", "yellow", "green");

• ARRAY OBJECT

- Syntax:

```
 var obj={
        "key1":"value1",
        "key2":"value2",
        "key3":"value3",
        "key4":"value4",
}
```

Example:

```
var obj={

        "ID":"SunEd-01",

        "Name":"SunEd",

        "Gender": "Male",

        "DOB":"2022",

}
```

• JAVASCRIPT LOOP

•for - loops through a block of code a number of times

•for/in - loops through the properties of an object

•while - loops through a bloc of code while a specified condition is true

• do/while - also loops through a block of code while a specified condition is true

FOR LOOP

- Syntax:

- for (*statement 1*; *statement 2*; *statement 3*) {
    // code block to be executed
    }

- Example:

```
for (i = 0; i < 5; i++) {
  text += "The number is " + i + "<br>";
}
```

FOR /IN LOOP

- Syntax:

- for (key in object) {
  // *code block to be executed*
  }

- Example:

var person = {"fname":"John", "lname":"Doe", age:25};

var text = "";
var x;
for (x in person) {
  text += person[x];
}

FOR /IN OVER ARRAY

- **Syntax:**

- for (variable in array) {
    code
  }

- Example:

```
var numbers = [45, 4, 9, 16, 25];

var txt = "";
var x;
for (x in numbers) {
  txt += numbers[x] + "<br>";
}
document.getElementById("demo").innerHTML = txt;
```

• JAVASCRIPT ARRAY METHOD

- join()

- pop() Remove the last element of an array

- push() method adds a new element to an array (at the end)

JAVASCRIPT STRING TO ARRAY

- ```
  var imgList = "1.jg 2.jpg 3.jpg 4.jpg"
  var myImg = imgList.split(" ");
  ```

jQuery

JQUERY STRUCTURE

```
$(document).ready(function()

{

        $("#btn").click(function(){

                alert("Hello SunEd");

        });

})
```

jQuery Effects
jQuery HTML
jQuery Traversing

JQUERY

- text()
- html()
- val()
- css()
- attr()

- append()
- prepend()
- after()
- before()
- remove()
- empty()
- addClass()
- removeClass()

- parent()
- parents()
- find()