

Department of Computer Science
City University of Hong Kong
CS2204 Fundamentals of Internet Application Development
Tutorial 10 – JavaScript

Learning Outcomes:

- learn various operations and statements of Javascript

1. Variable Scope

Set up and run the following Javascript. Give an explanation for the result obtained :

```
var scope="global";  
function f() {  
    alert(scope);  
    var scope="local";  
    alert(scope);  
}  
f();
```



2. Working with JavaScript

Given a variable length string (you set it up in your script), count the number of digits and show the following two lines as <h2> headings in your web page :

Input string : xxxxxxxxx (i.e. the actual value of the string)
No. of digits in the string : xx

Write your script with the following :

- for loop
 - while loop
 - do-while loop
- use switch statement instead of if-else statement together with the loop

3. Filling a table randomly with alphabets

Random table

G	F	E
C	Q	X
U	K	B

Download tutorial10.html from Canvas. Firstly, write a function to return an alphabet (i.e. A to Z) randomly.

Given these techniques:

- `document.querySelectorAll("td")` returns an array of all TD elements
- `td.innerHTML = A` (if td is one of the td elements, then `<td>A</td>` is the result)
- the Math object provides methods to generate random numbers

add inline scripts after the table element to fill up all the table cells with random alphabets by calling the function you have written. A new set of alphabets will be created when the page is reloaded.

Think about how to do these first (i.e. the algorithm) and then map to Javascript.