

## Week 4 Lab 1

### Repetition structures

#### A) While loop

- i. Create a new html file and name it 'while.html' using a code editor of your choice.
- ii. In while.html, fill in HTML5 doctype declaration, html, head, title and body elements.
- iii. Write a script element, <script> </script> between head element opening and closing tags.
- iv. Between script element opening and closing tags, write the following Javascript code:

```
var num = parseInt(prompt("Enter a number:"));  
while (num != 0){  
    document.write("Number: " + num + "<br>");  
    num = num - 1;  
}
```

- v. Save while.html, open the file in your internet browser, try inserting a few different values and observe the results.
- vi. Edit your code as follows:

```
var num = parseInt(prompt("Enter a number:"));  
if (num >= 100){  
    document.write("Number is too big..");  
} else {  
    while (num != 100){  
        document.write("Number: " + num + "<br>");  
        num = num + 1;  
    }  
}
```

- vii. Save while.html, open the file in your internet browser, try inserting a few different values and observe the results.

## B) Do while loop

- i. Create a new html file and name it 'dowhile.html' using a code editor of your choice.
- ii. In dowhile.html, fill in HTML5 doctype declaration, html, head, title and body elements.
- iii. Write a script element, <script> </script> between head element opening and closing tags.
- iv. Between script element opening and closing tags, write the following Javascript code:

```
var num = parseInt(prompt("Enter a number:"));  
do {  
  
    num = num - 1;  
  
    document.write("Number: " + num + "<br>");  
  
} while (num != 0)
```

- v. Save dowhile.html, open the file in your internet browser, try inserting a few different values and observe the results.
- vi. Compare this code with previous code in section A) While loop, point iv. Try running both codes and when prompted, insert the same number for both codes to see the result difference.

## C) For loop

- i. Create a new html file and name it 'for.html' using a code editor of your choice.
- ii. In for.html, fill in HTML5 doctype declaration, html, head, title and body elements.
- iii. Write a script element, <script> </script> between head element opening and closing tags.
- iv. Between script element opening and closing tags, write the following Javascript code:

```
var sum = 0;  
  
for (var i = 0; i < 10; i++){  
  
    sum = sum + i;  
  
    document.write("Iteration no." + i + ", sum: " + sum + "<br>");  
  
}
```

- v. Save for.html, open the file in your internet browser and observe the results.
- vi. Edit your code as follows:

```
var text = prompt("What is your name?");  
  
for (var i = 0; i < text.length; i++){
```

```
document.write(text.charAt(i) + "</br>");
```

```
}
```

- vii. Save for.html, open the file in your internet browser, type in your full name and observe the results.

**Exercise:**

Using a for loop, code a program that would continuously prompt for a 'name' and a 'score' for 5 iterations. Place each of the 5 names and scores in a table with header cells for 'Name' and 'Score', and border set to 1. The result should look like the following:

<b>Name</b>	<b>Score</b>
eqw	321
das	312
das	132
das	312
dsa	132