DHA SUFFA UNIVERSITY
Department of Computer Science

CS-1201L
Introduction to Information and Communication Technology
Fall 2022

LAB 08 – Basic Form Validation using JavaScript

OBJECTIVE(S)

- Learn about basic Form Validation
- Learn about Regular Expressions

Basic Form Validation

It is important to validate the form submitted by the user because it can have inappropriate values. So, validation is a must to authenticate the user. JavaScript provides the facility to validate the form on the client-side so data processing will be faster on the server-side.

Example code (i)

```
<head>
<script type="text/javascript">
function validateform(){
var name=document.myform.name.value;
var password=document.myform.password.value;
if (name==""){
  alert("Name can't be blank");
  return false;
}else if(password.length<6){
  alert("Password must be at least 6 characters long.");
  return false;
  }  }
</script>
</head>
<body>
<form name="myform" method="post" onsubmit="validateform()" >
Name: <input type="text" name="name"><br/>
 Password: <input type="password" name="password"><br/>
<input type="submit" value="register">
</form>
</body>
```

JavaScript Regular Expressions

A regular expression is a sequence of characters that forms a search pattern. The search pattern can be used for text search and text replacement operations.

Regular Expression Modifiers

Modifiers can be used to perform case-insensitive more global searches:

Modifier	Description
i	Perform case-insensitive matching
g	Perform a global match (find all matches rather than stopping after the first match)

Regular Expression Patterns

Brackets are used to find a range of characters:

Expression	Description
[abc]	Find any of the characters between the brackets
[0-9]	Find any of the digits between the brackets
(x|y)	Find any of the alternatives separated with |

Metacharacters are characters with a special meaning:

Metacharacter	Description
\d	Find a digit
\s	Find a whitespace character
\b	Find a match at the beginning of a word like this: \bWORD, or at the end of a word like this: WORD\b
\uxxxx	Find the Unicode character specified by the hexadecimal number xxxx

Quantifiers define quantities:

Quantifier	Description
n+	Matches any string that contains at least one *n*
n*	Matches any string that contains zero or more occurrences of *n*
n?	Matches any string that contains zero or one occurrences of *n*

Using the RegExp Object

In JavaScript, the RegExp object is a regular expression object with predefined properties and methods.

Using test()

The test() method is a RegExp expression method. It searches a string for a pattern, and returns true or false, depending on the result.

Example code (iii)

```
<html>
<head>
<script>
function validateform(){
var name=document.myform.name.value;
var reg =  /CS/;
if (reg.test(name))
{
        alert("Valid username");
}
else
{
        alert("Invalid username");
}
}
</script>
```

```
</head>
<body>
<form name="myform" onsubmit="validateform()" >
 Name: <input type="text" name="name"><br/>
</form>
</body>
</html>
```

DHA SUFFA UNIVERSITY
Department of Computer Science

CS-1201L
Introduction to Information and Communication Technology
Fall 2022

LAB ASSIGNMENT

1. Create a form that asks the user to type a username and a password and then to retype that password. A prompt box should appear on the screen if both the passwords match. It should prompt the user to enter his/her Date of Birth and then display the complete data (username, password, and DOB) on the webpage.

SUBMISSION GUIDELINES

- Take a screenshot of each task.
- Place all the screenshots in a single word file labeled with Roll No and Lab No. e.g. **'cs191xxx_Lab01'.**
- Convert the file into PDF.
- Place all the related files along with the PDF file in a folder labeled with Roll No and Lab No. e.g. 'cs192xxx_Lab01'.
- Submit the folder at LMS
- **-100%** policies for plagiarism.