LECTURE-4

- Exceptions
- Cookies

EXCEPTIONS

- Syntax and usage
  - Similar to Java/C++ exception handling

```
try
{
   // your code here
}
catch (exception)
{
   // handle error
   // optional throw
}
```

THROW

- Syntax
  - throw (exception)

Example

```
 function( ) {
// Some error condition
throw (”<Some Exception String>”);
}
```

THROW EXAMPLE

```
<html>
 <body>
  <script>
    var x = prompt ("Enter a number between 0 and 10:","");
     try {
         if (x > 10)
            throw "Err1";
         else if (x < 0)
            throw "Err2";
      }
       catch (err) {
         if (err == "Err1")
            alert ("Error! The value is too high");
         if (err == "Err2")
            alert ("Error! The value is too low");
     }
  </script>
 </body>
</html>
```

TYPES OF EXCEPTIONS

- EvalError (old) — Error occurred in the eval function
- RangeError — Number out of range error
- ReferenceError — Illegal reference error
- SyntaxError — A syntax error
- TypeError — A type error
- URIError — encodeURI( ) function error

COOKIES

- Small amount of information a web server stores on a browser.
- Cookie structure – <name, value> pairs
- Typically used to
  - Remember login and password
  - User preferences
  - Web sites visited
  - Personalization
- Location where cookies are stored –
  - Different for each browser.
- Cookies have an expiration time
- Cookies can be removed

COOKIES … CONTD.

- Cookies <name, value> pairs store
  - Name of the cookie
  - Value of the cookie
  - Server name and path
    - If the path is "/", cookie is valid in the entire domain
  - Expiry Tuesday, February 18, 2020
- Each web server
  - Can read its OWN cookies when the web page is loaded.
  - NOT cookies of some other web server
  - Can load multiple (up to a finite limit) cookies on each browser.

COOKIES … CONTD.

- Cookies
  - Are plain text files.
  - Can't be used to read other data on the computer.
  - Are not executable files
  - Cannot erase data on computer
- A site can open ONLY cookies it owns
- Cookies are set using "Set-Cookie" attribute in HTTP.

WHAT JAVASCRIPT CANNOT DO

- Javascript cannot
  - Read or write files on client
    - (Other than cookies).
  - Close a window it did not open.
  - Access information (cookies or web content) of other web pages.
  - Access databases, without the use of AJAX and a server side script
  - Cannot write files to servers without the help of server side script.