

# **HTML 5 Geolocation API**

## **HTML**



**Bok, Jong Soon**  
**[jongsoon.bok@gmail.com](mailto:jongsoon.bok@gmail.com)**  
**[www.javaexpert.co.kr](http://www.javaexpert.co.kr)**

# HTML5 Geolocation API (Cont.)

- Is used to get the geographical position of a user.
- Since this can compromise user privacy, the position is not available unless the user approves it.



# The `getCurrentPosition()` Method

- Use the `getCurrentPosition()` method to get the user's position.
- Returns an object if it is successful.
- Return Data
  - `coords.latitude`
    - The latitude as a decimal number
  - `coords.longitude`
    - The longitude as a decimal number
  - `coords.accuracy`
    - The accuracy of position

# The `getCurrentPosition()` Method (Cont.)

## ■ Return Data

- `coords.altitude`
  - The longitude as a decimal number
- `coords.altitudeAccuracy`
  - The altitude accuracy of position
- `coords.heading`
  - The heading as degrees clockwise from North
- `coords.speed`
  - The speed in meters per second
- `timestamp`
  - The date/time of the response

# The `getCurrentPosition()` Method (Cont.)

## ■ Syntax

- `window.navigator.geolocation.getCurrentPosition(successCallback, errorCallback, options)`

## ■ options

- `enableHighAccuracy`
- `timeout`
- `maxiumAge`

# Geolocation Object's other methods

## ■ `watchPosition()`

- Returns the current position of the user and continues to return updated position as the user moves (like the GPS in a car).

## ■ `clearWatch()`

- Stops the `watchPosition()` method.

# Lab1 : Geolocation

- Web Browsers

- IE10, Firefox, Google Chrome, Opera, Safari

- Text Editors

- Notepad++ or Editplus

- Files

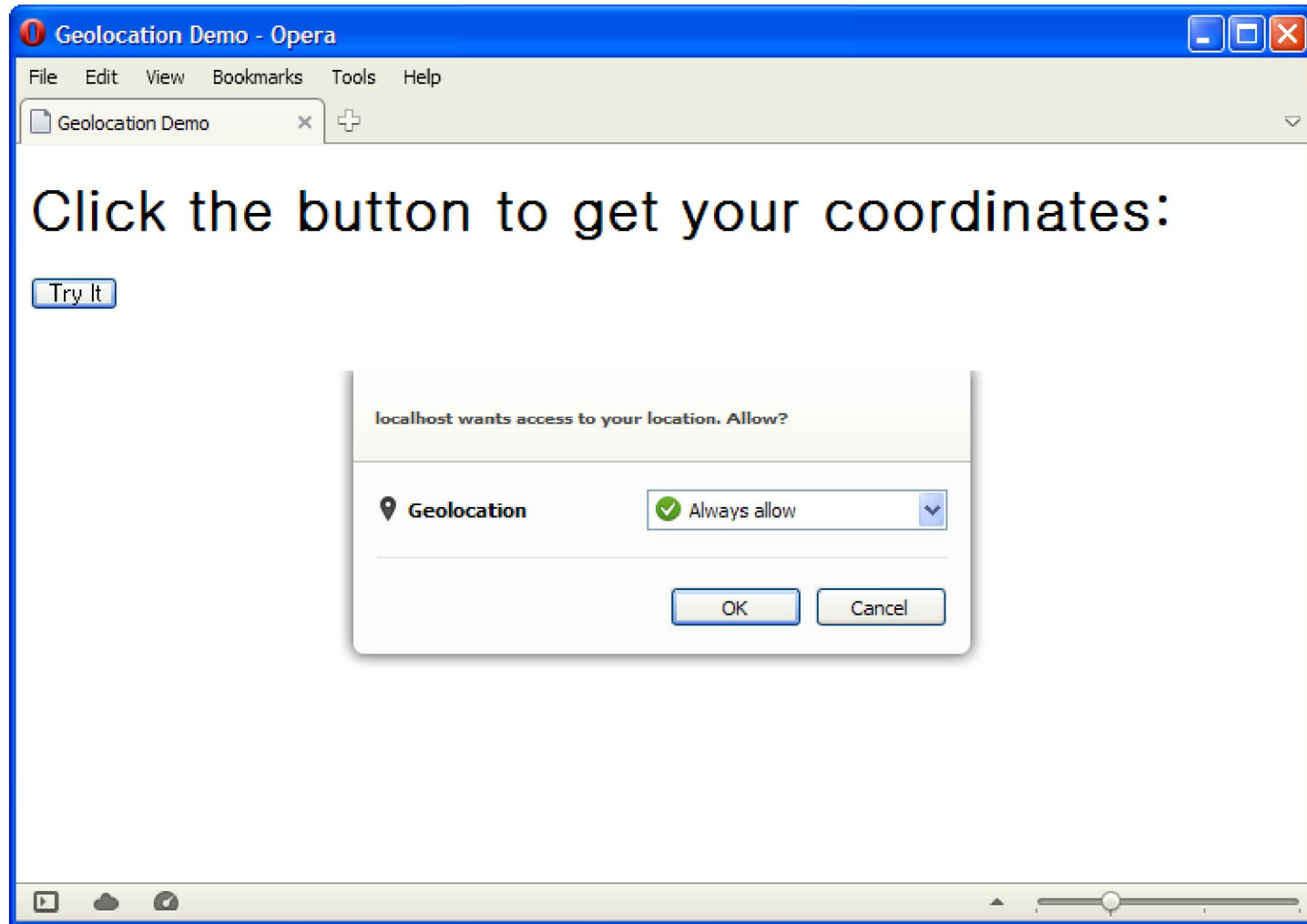
- geolocation.html

# Lab1 : geolocation.html

```
1  <!DOCTYPE html>
2  <html>
3  <body>
4      <p id="demo">Click the button to get your coordinates:</p>
5      <button onclick="getLocation()">Try It</button>
6      <script>
7          var x=document.getElementById("demo");
8          function getLocation() {
9              if (navigator.geolocation) {
10                 navigator.geolocation.getCurrentPosition(showPosition);
11             } else{
12                 x.innerHTML="Geolocation is not supported by this browser.";
13             }
14         }
15         function showPosition(position) {
16             x.innerHTML="Latitude: " + position.coords.latitude +
17                 "<br>Longitude: " + position.coords.longitude;
18         }
19     </script>
20 </body>
21 </html>
```



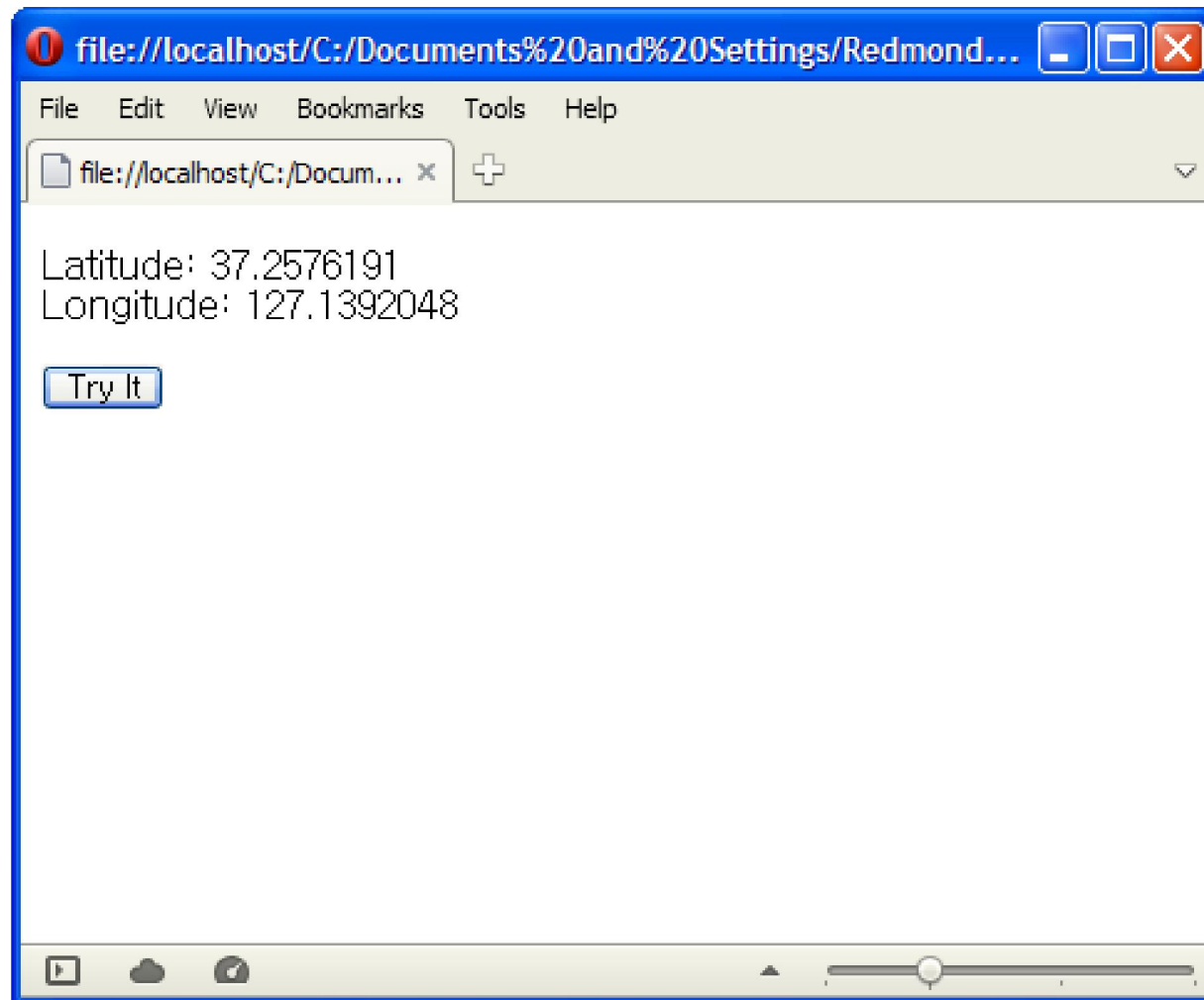
# Lab1 : Result



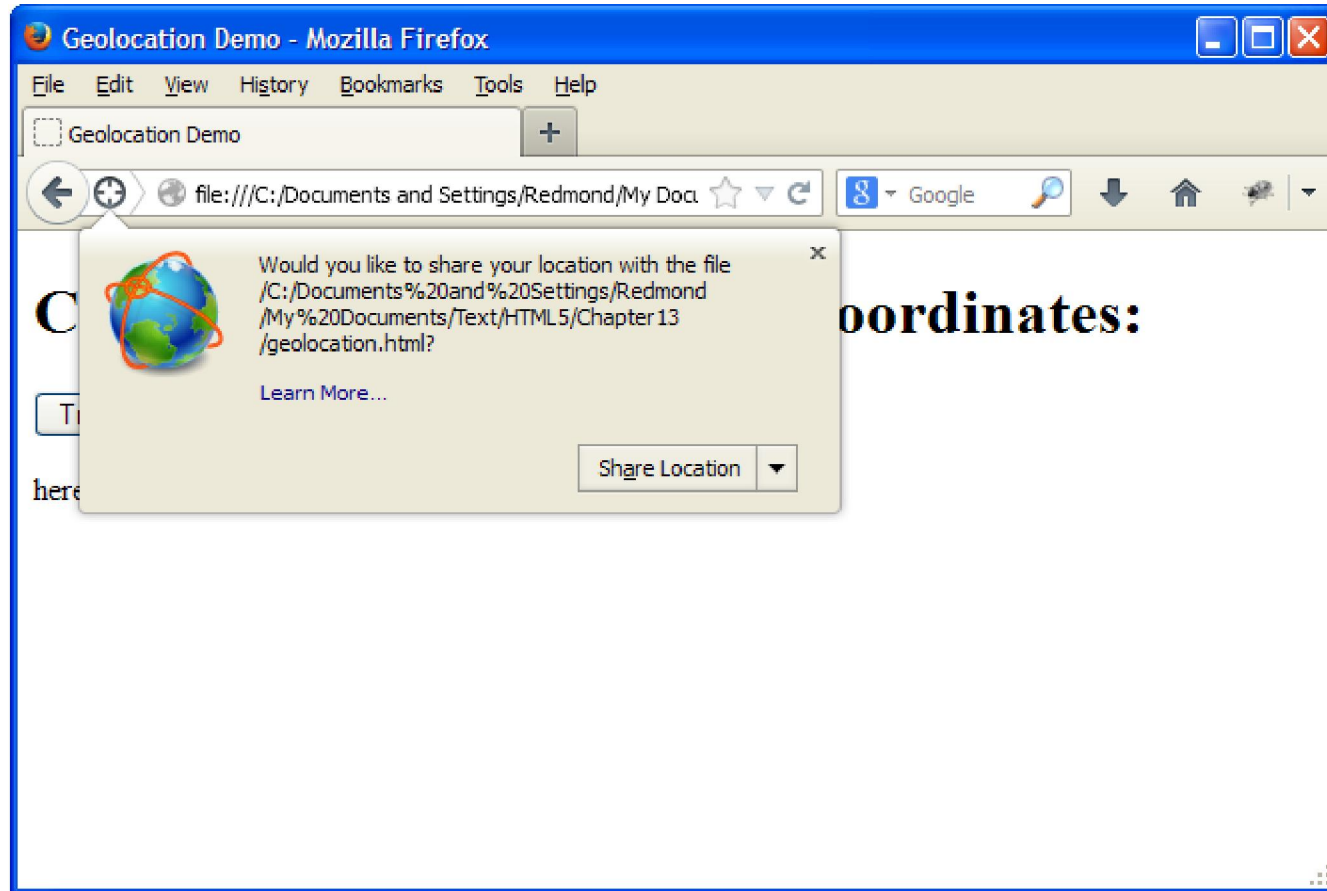
# Lab1 : Result (Cont.)



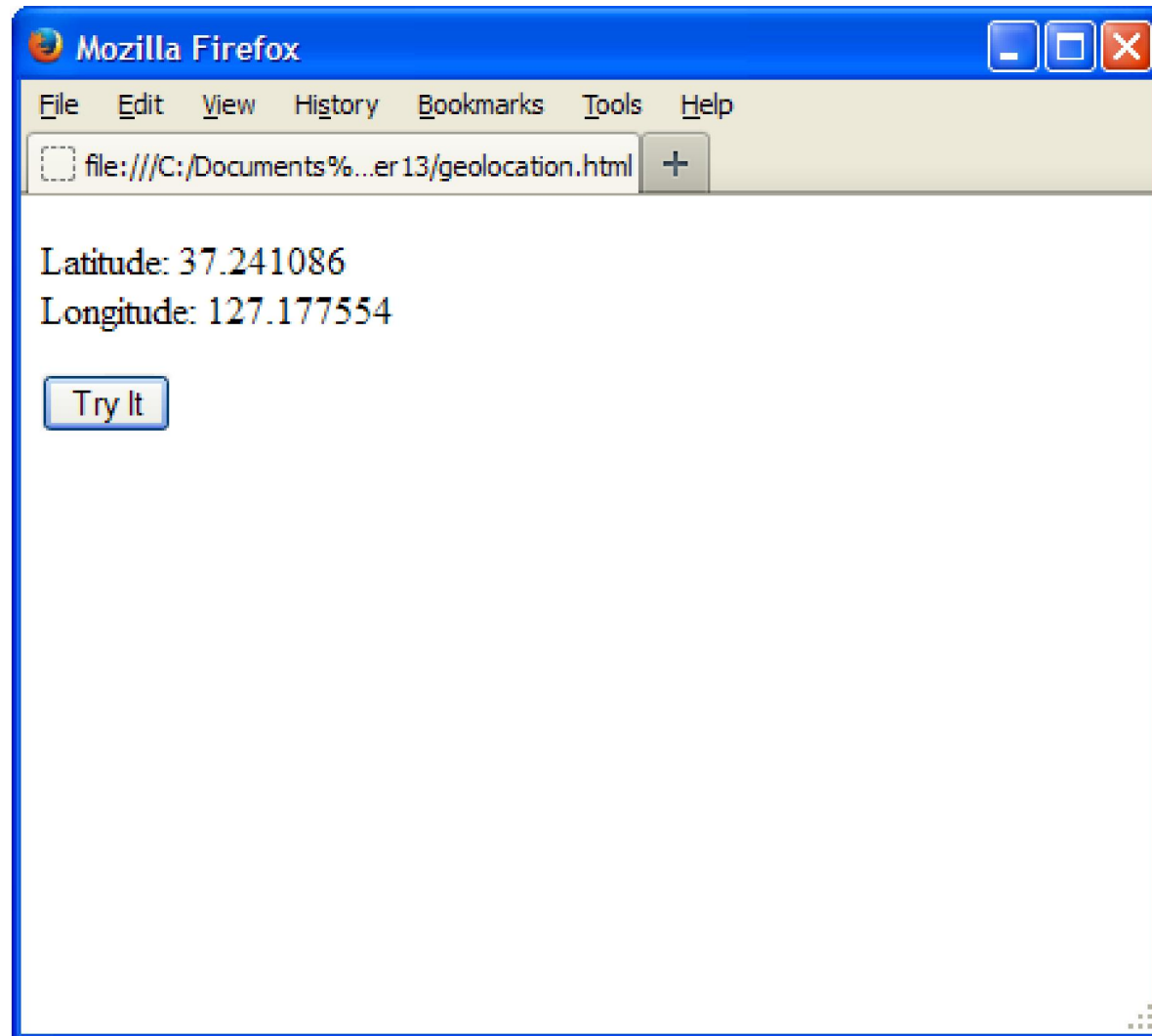
# Lab1 : Result (Cont.)



# Lab1 : Result (Cont.)



# Lab1 : Result (Cont.)



# Lab2 : Geolocation with Google Map

## ■ Web Browsers

- IE10, Firefox, Google Chrome, Opera, Safari

## ■ Text Editors

- Notepad++ or Editplus

## ■ Files

- geolocation1.html

# Lab2 : geolocation1.html (1/2)

```
3 <body>
4   <p id="demo">Click the button to get your position : </p>
5   <button onclick="getLocation()">Try It</button>
6   <div id="mapholder"></div>
7   <script>
8     var x=document.getElementById("demo");
9     function getLocation() {
10       if (navigator.geolocation) {
11         navigator.geolocation.getCurrentPosition(showPosition, showError);
12       } else{
13         x.innerHTML="Geolocation is not supported by this browser.";
14       }
15     }
16     function showPosition(position) {
17       var str = position.coords.latitude + "," + position.coords.longitude;
18       var img_url = "http://maps.googleapis.com/maps/api/staticmap?center=" +
19       str + "&zoom=14&size=400x300&sensor=false";
20       document.getElementById("mapholder").innerHTML = "<img src='"+img_url+"'>";
21     }
```

# Lab2 : geolocation1.html

```
22 function showError(error) {
23     switch(error.code){
24         case error.PERMISSION_DENIED :
25             x.innerHTML = "User denied the request for Geolocation.";
26             break;
27         case error.POSITION_UNAVAILABLE :
28             x.innerHTML = "Location information is unavailable.";
29             break;
30         case error.TIMEOUT :
31             x.innerHTML = "The request to get user location timed out.";
32             break;
33         case error.UNKNOWN_ERROR :
34             x.innerHTML = "An unknown error occurred.";
35             break;
36     }
37 }
38 </script>
39 </body>
40 </html>
```



# Lab2 : Result

