



HTML5 & Its New Features

Lesson 4: HTML5 –
Native Features

Lesson Objectives



In this lesson you will learn about:

- List of HTML5 Native Features





The Geolocation

- The Geolocation API lets you find out where the user is.
- It also keeps the track of as they move around, always with the user's consent
- This functionality could be used as part of user queries, e.g. to guide someone to a destination point
- It could also be used for "geo-tagging" some content the user has created, e.g. to mark where a photo was taken
- The API is device-agnostic; it doesn't care how the browser determines location, so long as clients can request and receive location data in a standard way
- The underlying mechanism might be via GPS, wifi, or simply asking the user to enter their location manually
- Since any of these lookups is going to take some time, the API is asynchronous; you pass it a callback method whenever you request a location



Browser Compatibility

- Currently the W3C Geolocation API is supported by the following desktop browsers:
 - Firefox 3.5+
 - Chrome 5.0+
 - Safari 5.0+
 - Opera 10.60+
 - Internet Explorer 9.0+
- There is also support for the W3C Geolocation API on mobile devices:
 - Android 2.0+
 - iPhone 3.0+
 - Opera Mobile 10.1+
 - Symbian (S60 3rd & 5th generation)
 - Blackberry OS 6



Data Protection

- The specification explicitly states that since the nature of the API also exposes the user's location
- Therefore it could compromise their privacy, the user's permission to attempt to obtain the geolocation information must be sought before proceeding





Geolocation - Steps to be followed

➤ Step 1. Check for Compatibility

- You can easily check for compatibility by testing for the presence of the geolocation object:

```
// check for Geolocation support if (navigator.geolocation)
{ console.log('Geolocation is supported!'); } else {
console.log('Geolocation is not supported for this
Browser/OS version yet.');
```

➤ Step2. Determine the User's Current Location

```
window.onload = function() { var startPos;
navigator.geolocation.getCurrentPosition(function(position) { startPos =
position; document.getElementById('startLat').innerHTML =
startPos.coords.latitude;
document.getElementById('startLon').innerHTML =
startPos.coords.longitude; }); });
```



Geolocation - Steps to be followed

➤ Step 3. Monitor the User's Location

```
window.onload = function() { var startPos;  
navigator.geolocation.getCurrentPosition(function(position) {  
startPos = position;  
document.getElementById('startLat').innerHTML =  
startPos.coords.latitude;  
document.getElementById('startLon').innerHTML =  
startPos.coords.longitude; }); };
```



4.1: List of HTML5 Native Features

HTML5 – Native Features

- **File System – File API** used in directly accessing the internal file system of a device like memory card or phone memory and we can directly select any file from file system and upload to html5 page

```
<input type="file" accept="image/*;capture=filesystem" id="capture">
```

Device	Attribute (accept)	Remark	Attribute (capture)	Remark
Blackberry OS 6.0	image/*	Working	Camera	Working
	sound/*	Working	Camcoder	Not Working
	Video/*	Working	microphone	Not Working
			filesystem	Working
Android 2.2	image/*	Working	Camera	Not working
	sound/*	Working	Camcoder	Not Working
	Video/*	Not Working	microphone	Working
			filesystem	Working
Iphone 4	image/*	Working	Camera	Not Working
	sound/*	Working	Camcoder	Not Working
	Video/*	Not Working	microphone	Not Working
			filesystem	Working

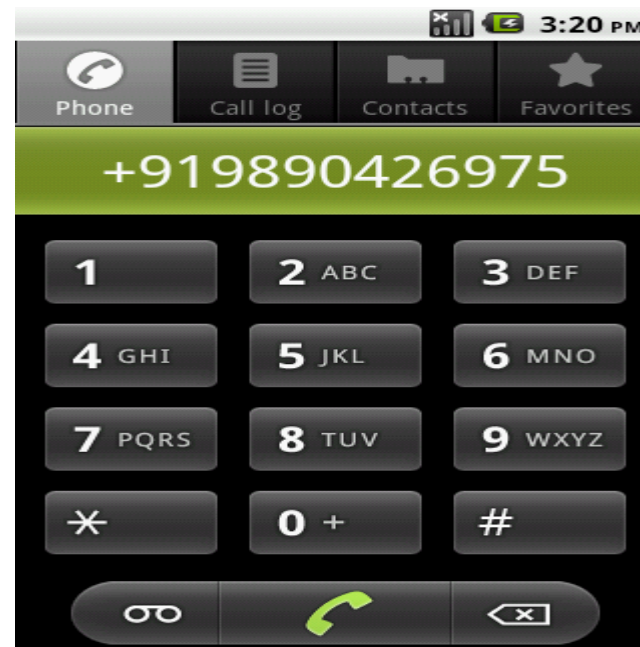
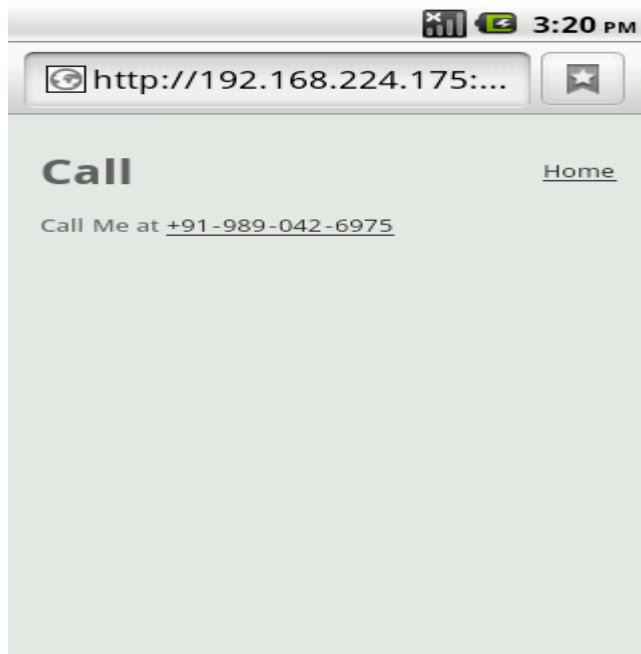


4.1: List of HTML5 Native Features

HTML5 – Native Features

- **Call** - In HTML5 we can call from HTML5 web page to any number using device internal calling Feature

```
<a href="tel:+918600993494" data-role="button" rel="external">Call Now</a>
```



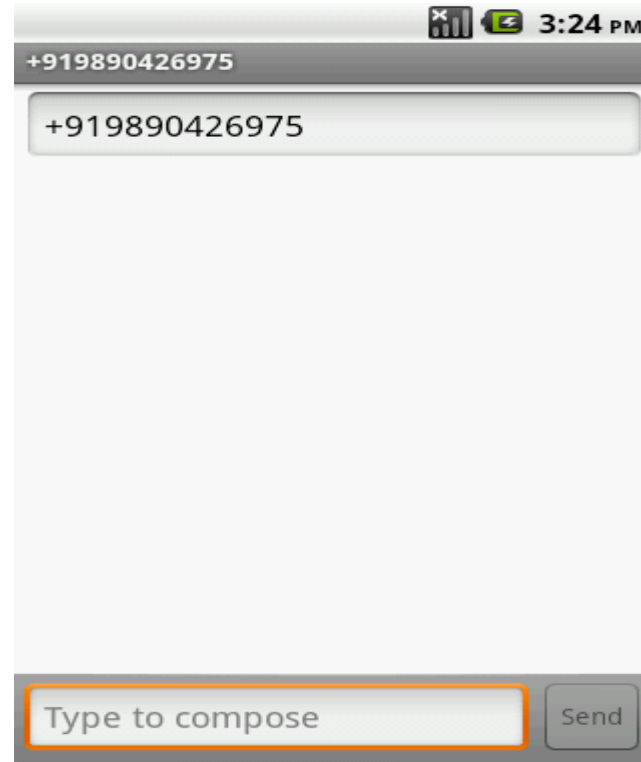
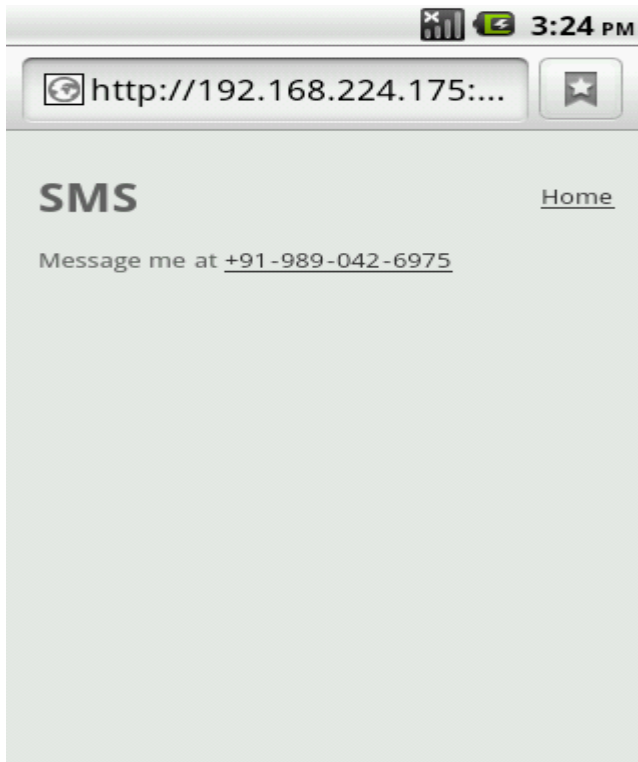


4.1: List of HTML5 Native Features

HTML5 – Native Features

- **SMS** - In html5 we can sms from html5 web page to any number using device internal sms feature

```
<a href="sms:+918600993494">Message me</a>
```





HTML5 – Native Features

➤ Email

```
<a href=mailto:shilpa.bhosle@igatepatni.com>Write to Me</a>
```

- **HTML5 also provide support for Contact List & Camera but both the features are still in W3C Draft under Working**

Summary



In this module, you have learnt:

- Different Native features supported by HTML5
- Geolocation – Lets you find the user's location and also monitors it
- FileSystem – JavaScript API lets you access device's internal memory card or phone memory
- HTML5 also provides support for Call, Email & SMS native features

