

# Building Mobile Applications

Computer Science S-76

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web apps v. native apps



Carrier

2:02 PM



HARVARD  
UNIVERSITY

Search Harvard Mobile Web



People



Map



Admissions



Courses



Shuttle  
Tracker



Dining

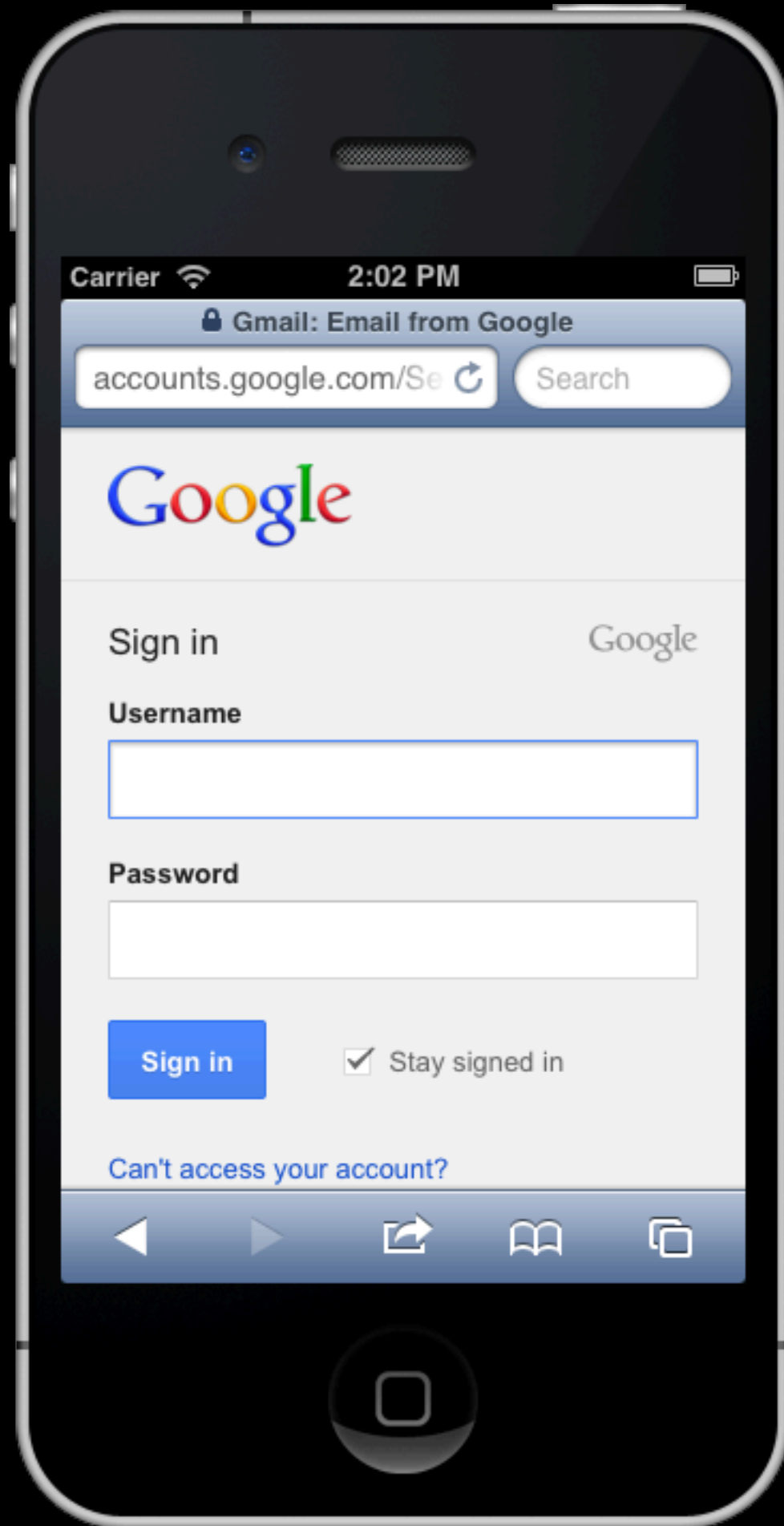


Athletics



Library







```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <title>hello, world</title>
```

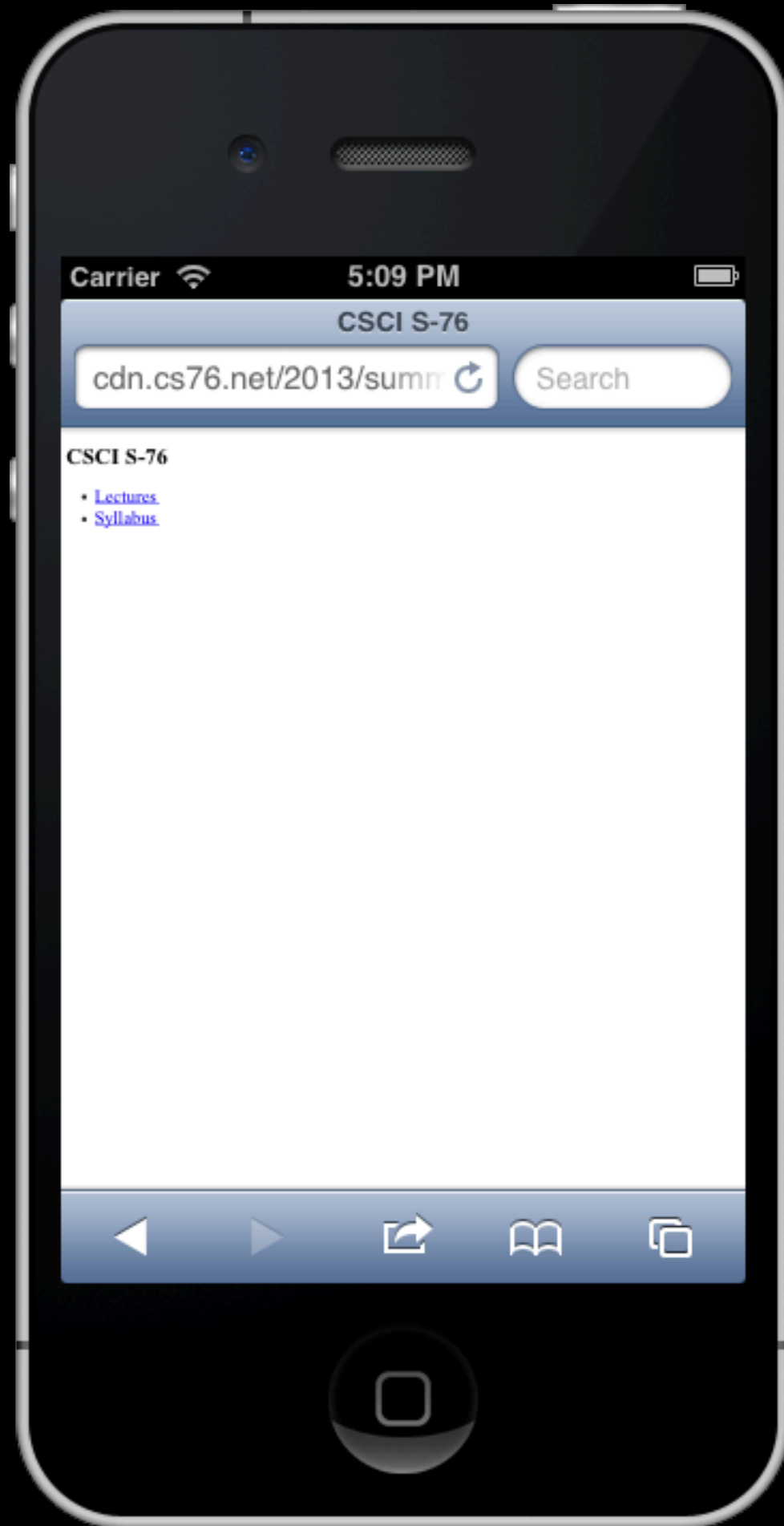
```
  </head>
```

```
  <body>
```

```
    hello, world
```

```
  </body>
```

```
</html>
```





# viewport

```
<meta name="viewport" content="width=device-width"/>
```

# viewport

height

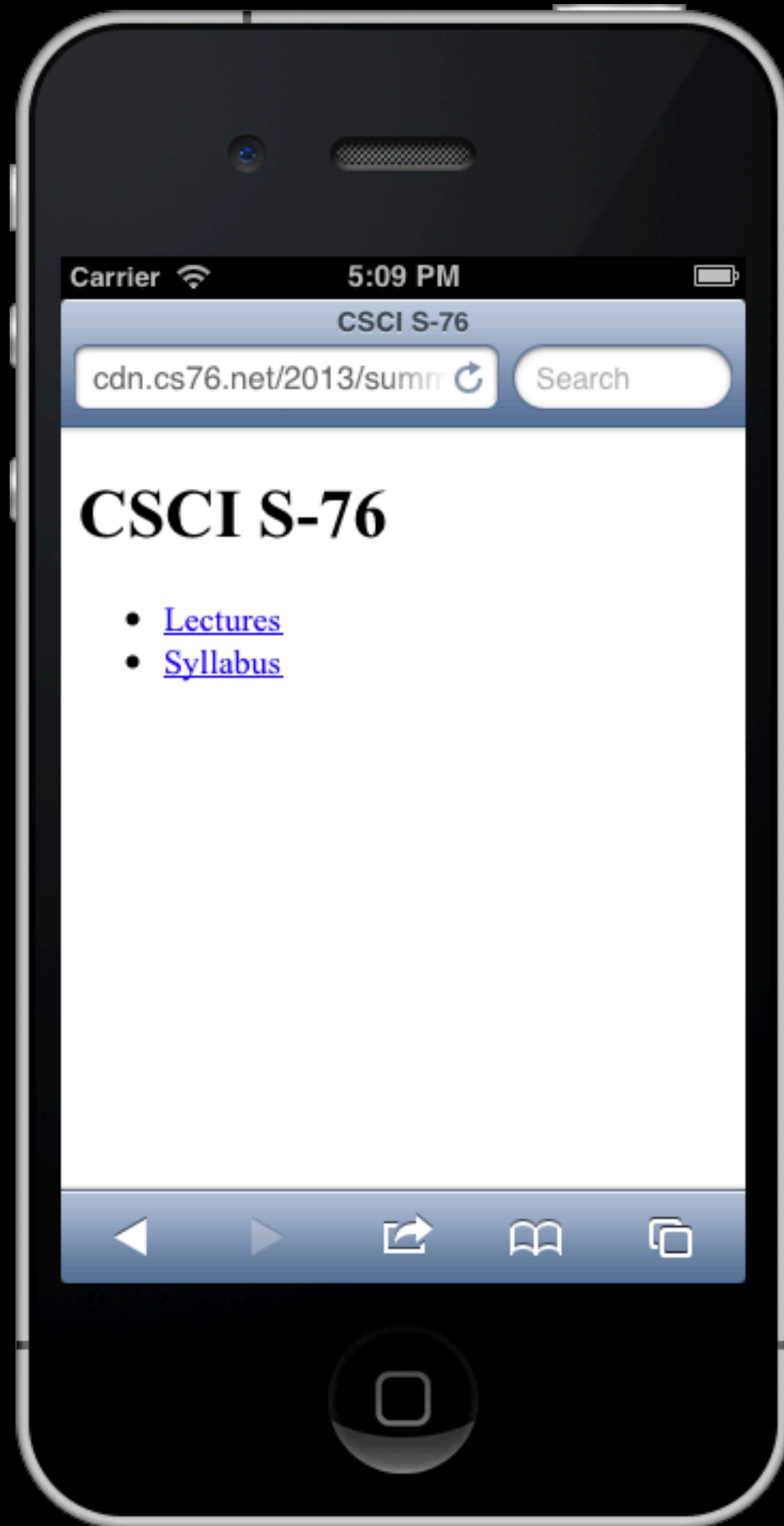
initial-scale

maximum-scale

minimum-scale

user-scalable

width



```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <link href="styles.css" rel="stylesheet">
```

```
    <title>hello, world</title>
```

```
  </head>
```

```
  <body>
```

```
    hello, world
```

```
  </body>
```

```
</html>
```

# frameworks

jQuery Mobile

PhoneGap

Sencha Touch

...

# apple-mobile-web-app-capable

```
<meta name="apple-mobile-web-app-capable" content="yes"/>
```

# apple-mobile-web-app-status-bar-style

```
<meta name="apple-mobile-web-app-status-bar-style" content="black"/>
```

# apple-touch-icon.png

```
<link rel="apple-touch-icon" href="custom_icon.png"/>
```



apple-touch-icon-precomposed.png

```
<link rel="apple-touch-icon-precomposed" href="custom_icon.png"/>
```

# apple-touch-startup-image

```
<link rel="apple-touch-startup-image" href="startup.png"/>
```

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <link href="styles.css" rel="stylesheet">
```

```
    <script src="scripts.js"></script>
```

```
    <title>hello, world</title>
```

```
  </head>
```

```
  <body>
```

```
    hello, world
```

```
  </body>
```

```
</html>
```

# JavaScript

# Building Mobile Applications

Computer Science S-76

# prerequisites

Prior programming experience in any  
object-oriented language

Comfort with HTML and CSS

~~iOS device~~

# expectations

attend all lectures and labs

submit all projects

# lectures

I on web apps

HTML5, JavaScript, ...

5 on native apps

Objective-C, UIKit, Storage, Gestures, Core Graphics, ...



# labs

wednesdays, 6:30pm, Northwest Science B108

website

[www.cs76.net](http://www.cs76.net)

# Discuss

[cs76.net/discuss](https://cs76.net/discuss)

# projects

Staff's Choice of Web Apps

Mobile Local

Staff's Choice of Native Apps

Evil Hangman

Student's Choice of Apps

# grades

scope

correctness

design

style

# grades

scope x (3 x correctness + 2 x design + 1 x style)

# app party

wed 8/7, 6:30pm





FRUIT

NINJA



```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <title>My title</title>
```

```
  </head>
```

```
  <body>
```

```
    <a href="">My link</a>
```

```
    <h1>My header</h1>
```

```
  </body>
```

```
</html>
```



```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>My title</title>
```

```
</head>
```

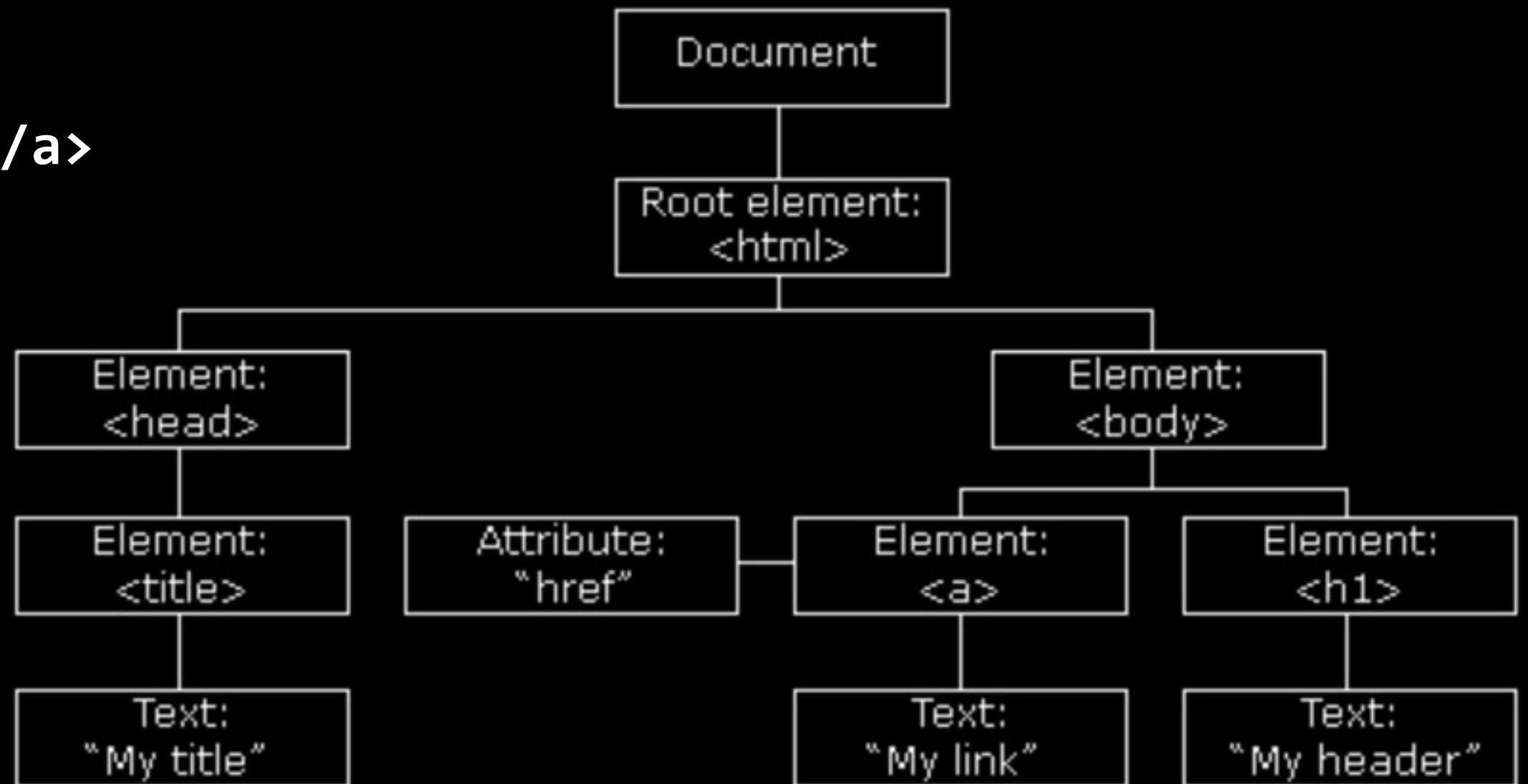
```
<body>
```

```
<a href="">My link</a>
```

```
<h1>My header</h1>
```

```
</body>
```

```
</html>
```



# JavaScript

```
<script>
```

```
...
```

```
</script>
```

```
<script src="file.js"></script>
```

```
break  
const  
continue  
do ... while  
for  
for ... in  
function  
if ... else  
return  
switch  
throw  
try ... catch  
var  
while  
...
```

# Arrays

[]



# Objects

{ }

# localStorage

.clear

.getItem

.removeItem

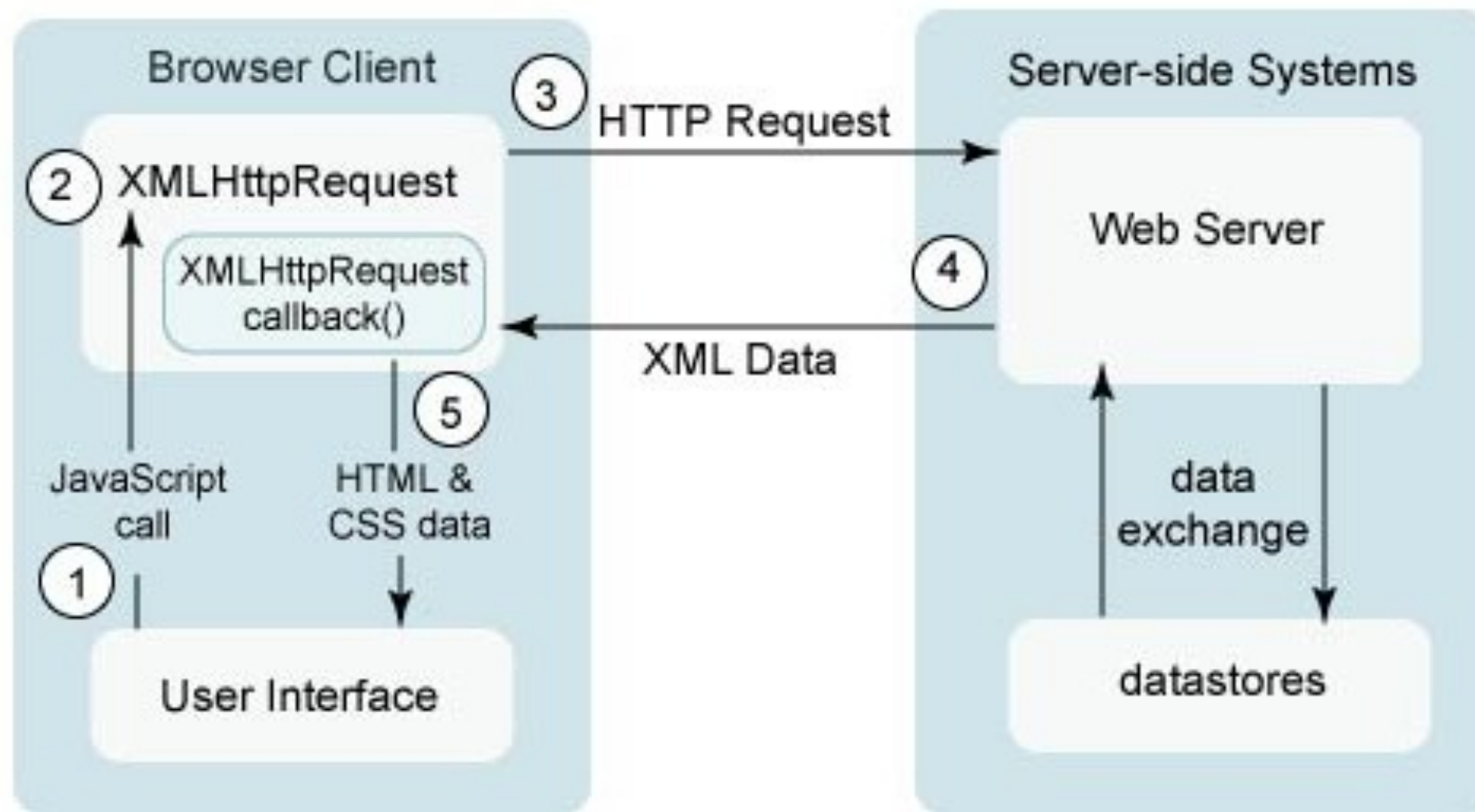
.setItem

# navigator.geolocation

.getCurrentPosition

jQuery  
jquery.com

# ajax



# Objective-C

