

Computer Science E-76

Building Mobile Applications



```
<?xml version="1.0"?>
<!DOCTYPE wml PUBLIC "-//WAPFORUM//DTD WML 1.1//EN"
    "http://www.wapforum.org/DTD/wml_1.1.xml" >
<wml>
    <card id="main" title="First Card">
        <p mode="wrap">This is a sample WML page.</p>
    </card>
</wml>
```

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>hello, world</title>
  </head>
  <body>
    hello, world
  </body>
</html>
```



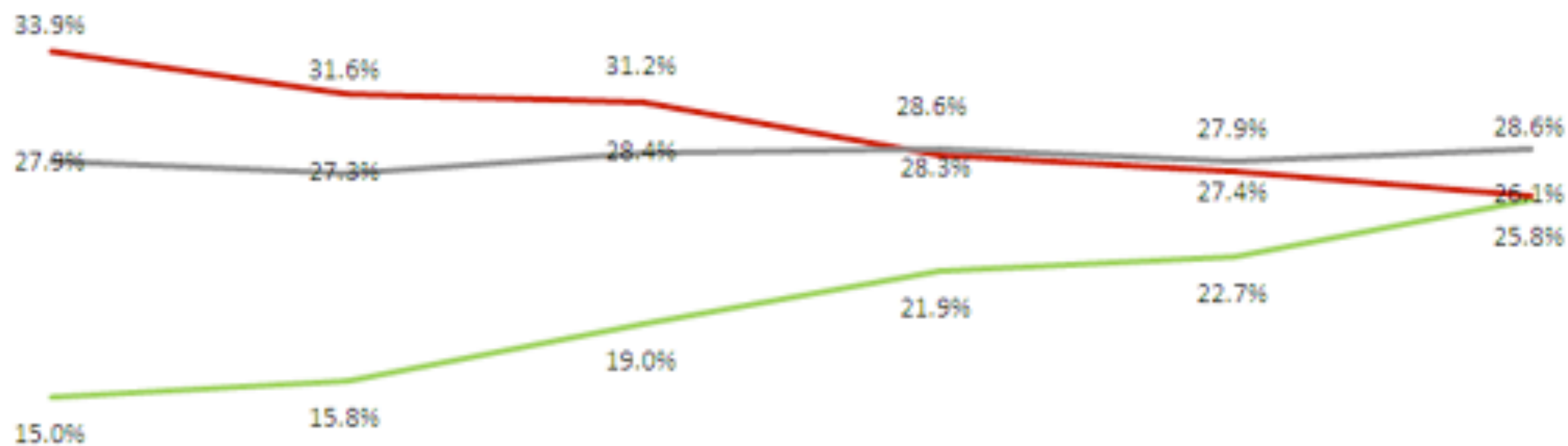




U.S. Smartphone Operating System Share

Adult Smartphone Consumers, Jun - Nov 2010

Android RIM BlackBerry OS Apple iOS



June 2010 (n=4185)

July 2010 (n=3942)

Aug 2010 (n=4547)

Sep 2010 (n=4754)

Oct 2010 (n=4889)

Nov 2010 (n=4371)

web apps v. native apps

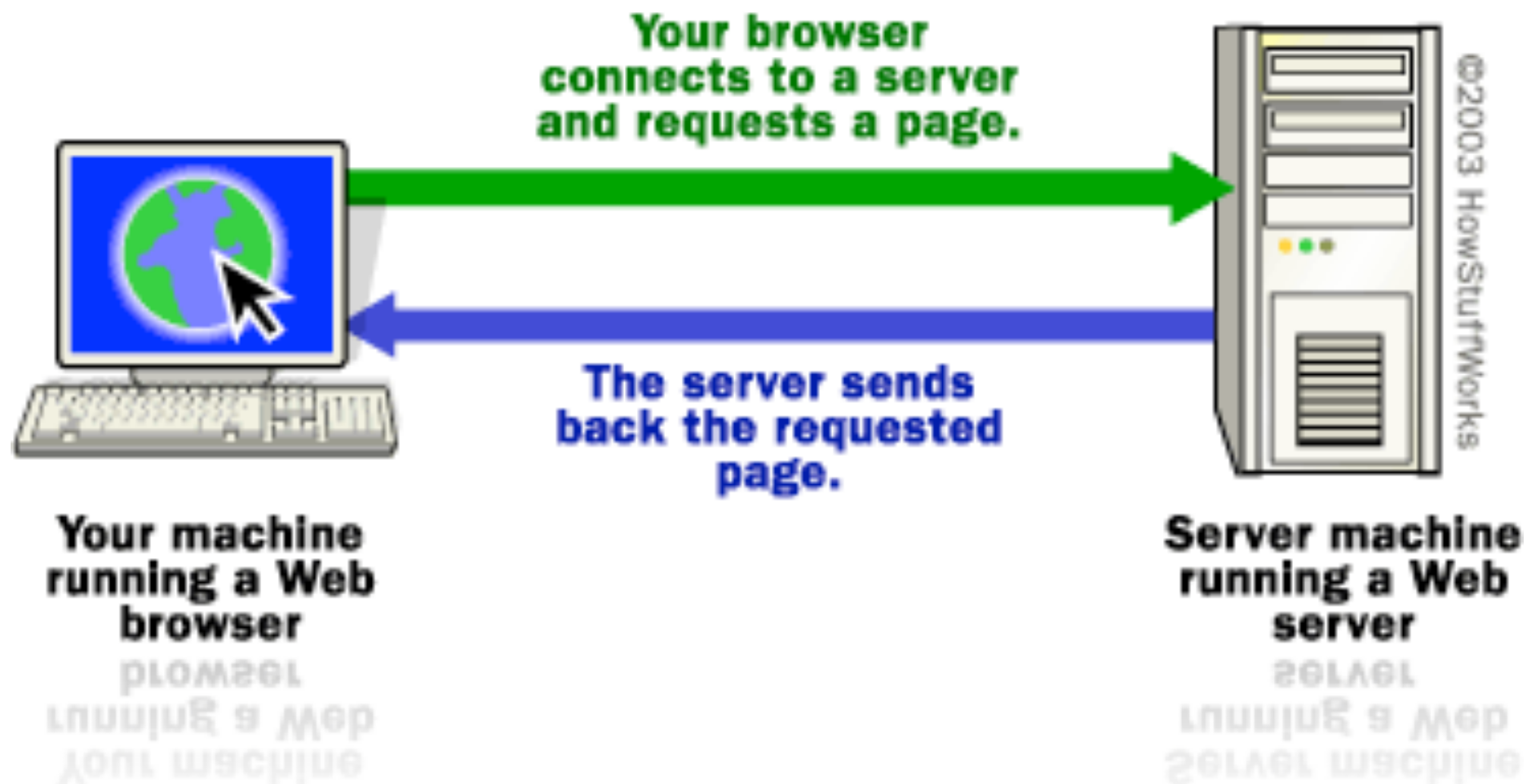
frameworks

jQTouch

PhoneGap

Sencha Touch

...

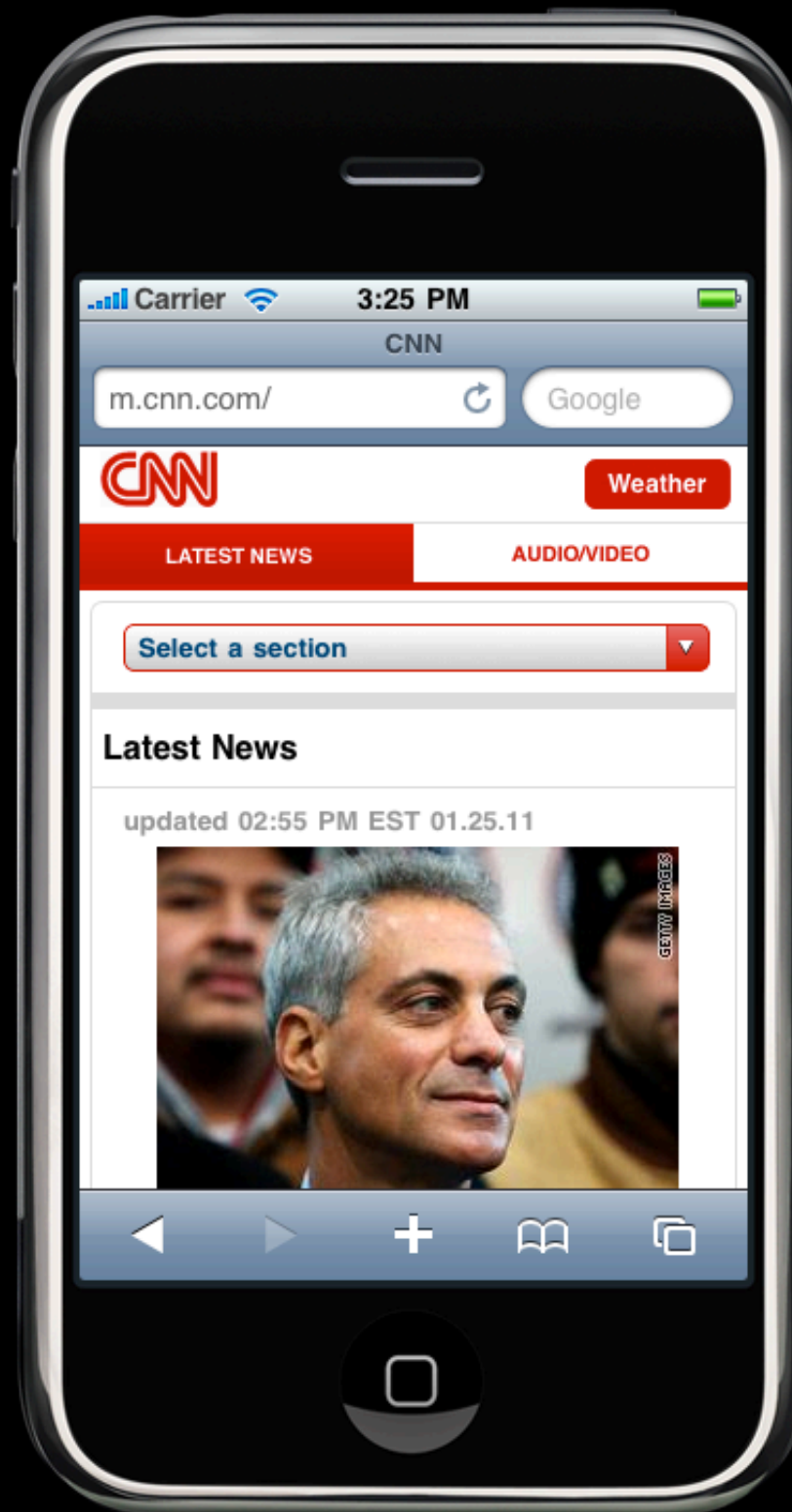


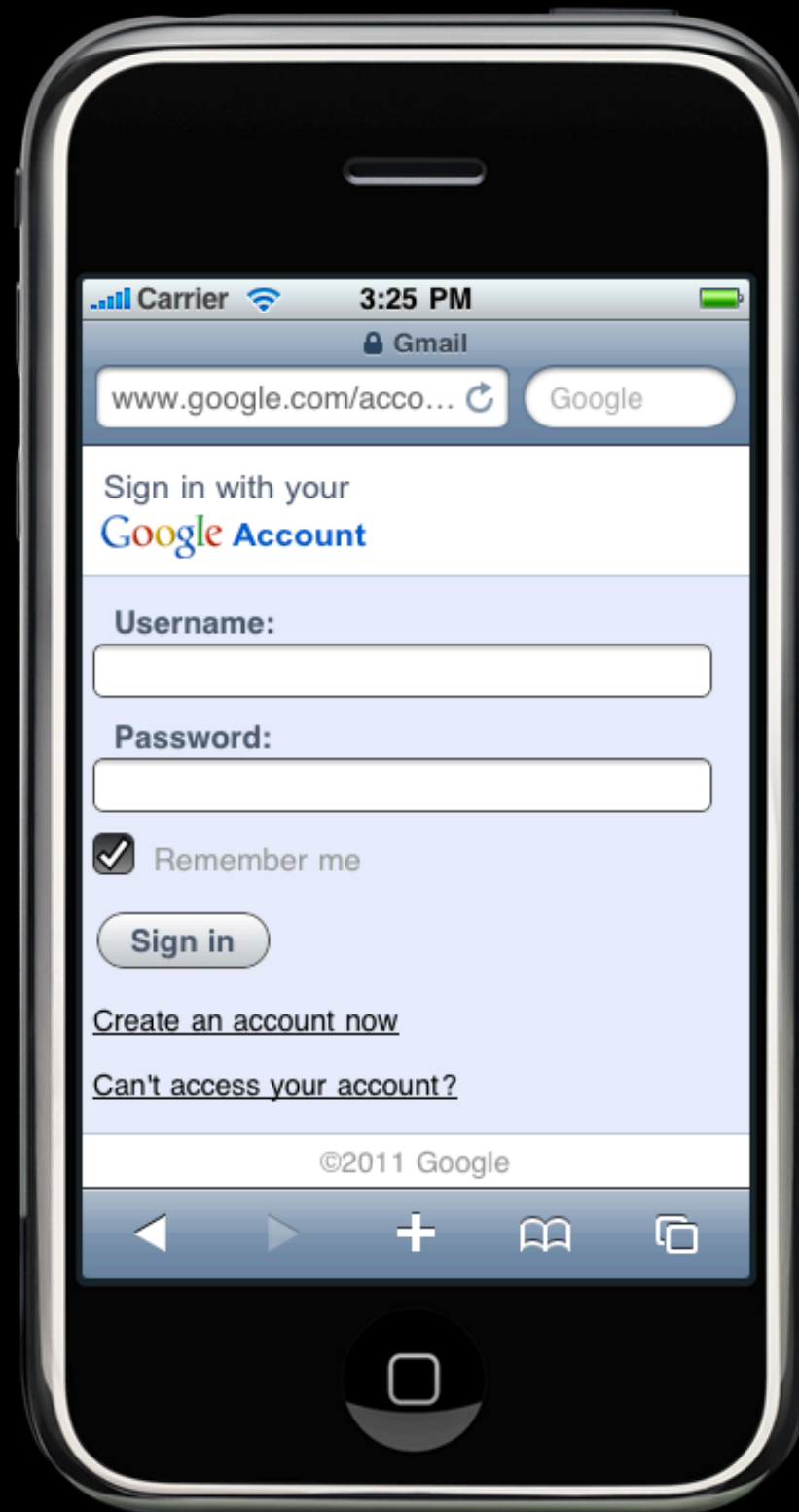
```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>hello, world</title>
  </head>
  <body>
    hello, world
  </body>
</html>
```

```
<!DOCTYPE html>
<html>
  <head>
    <link rel="stylesheet" href="styles.css">
    <meta charset="utf-8">
    <script src="scripts.js"></script>
    <title>hello, world</title>
  </head>
  <body>
    hello, world
  </body>
</html>
```

XMLHttpRequest







expectations

attend or watch all lectures and sections

submit all projects

prerequisites

prior programming experience in any object-oriented language

familiarity with HTML

* access to an Intel-based Mac running 10.6.4+

projects

HTML5 Apps

Staff's Choice, Student's Choice

Android Apps

Setup, Staff's Choice, Student's Choice

iOS Apps

Setup, Staff's Choice, Student's Choice

grades

correctness

design

style

lectures

2 on HTML5

5 on Android

1 on HTML5

5 on iOS

sections

on campus + filmed

online + recorded

app party

tue 5/10

an interface to some of the tools
provided by the MBTA.com website

app to allow mobile users to have access to
his or her Twitter account via Twitter API

a beer journal application to track the
beers that one drinks while leveraging the
enhanced data entry abilities of the iPhone

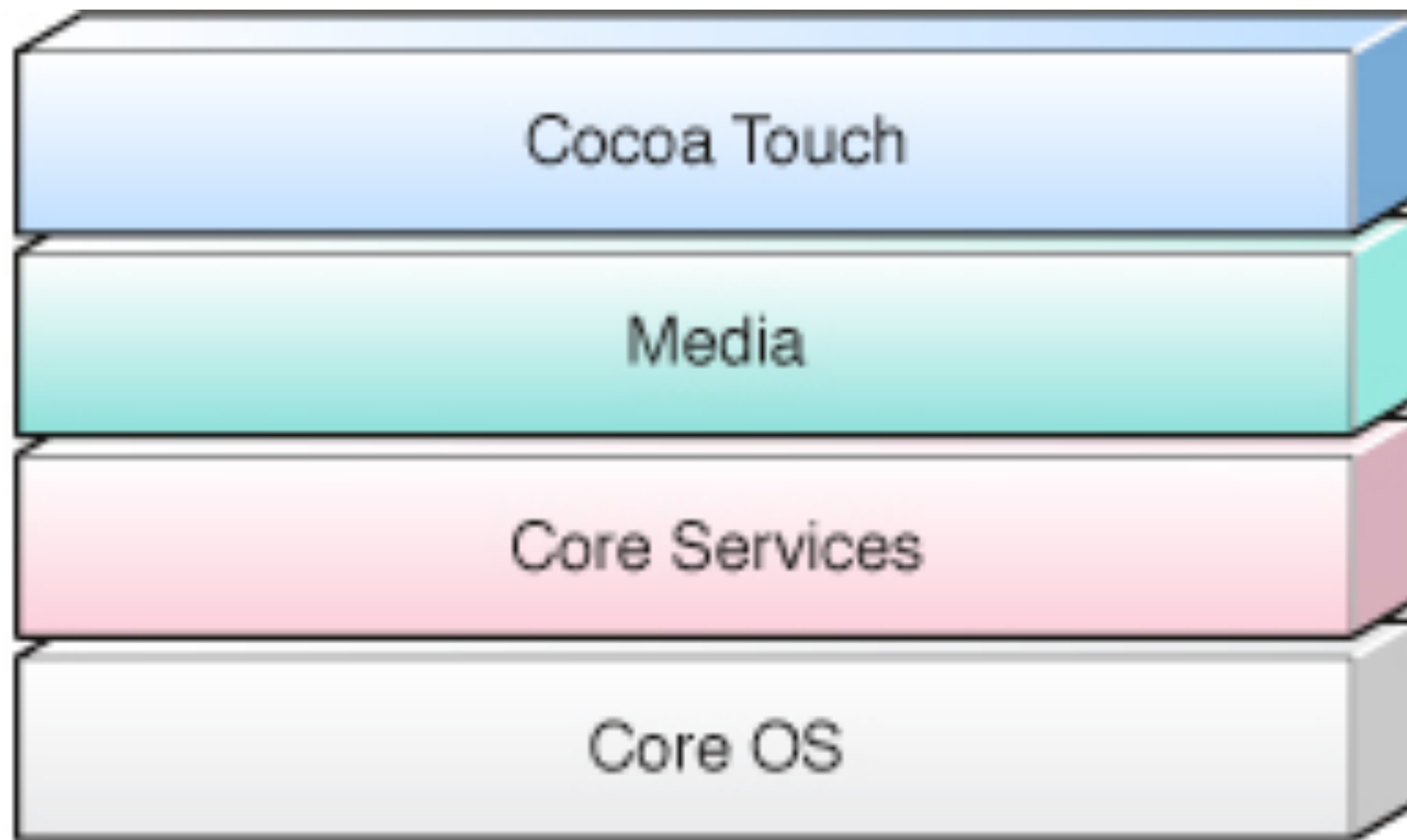
website

www.cs76.net

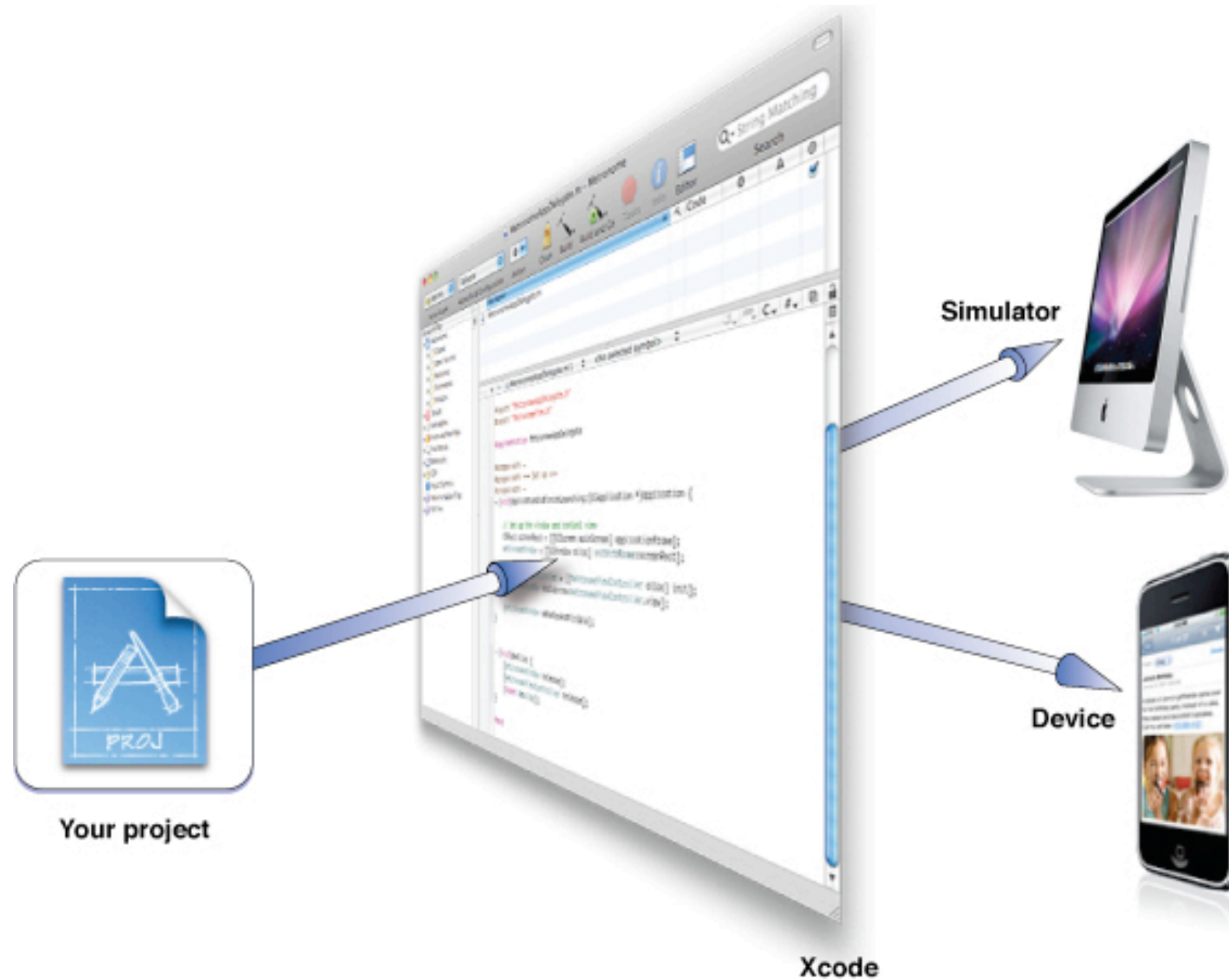
help

help.cs76.net

iOS layers



Xcode



iOS SDK

Xcode Tools

- Xcode
- Interface Builder
- Instruments

iPhone Simulator

iOS Reference Library

iOS frameworks

Address Book UI Framework

Event Kit UI Framework

Game Kit Framework

iAd Framework

Map Kit Framework

Message UI Framework

UIKit Framework

...

Objective-C

```
foo.bar();
```

[foo bar];

break!