

Introduction to Mobile Applications



COSC 5384

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Mobile Platforms





Mobile Applications

web apps

- easier to maintain
- even compatible with any older mobile device
- released at any time
- no stores or downloading
- Multi-Platform

native apps

- easier to work with built-in features
- perform faster
- full support from marketplaces
- complete safety and security
- better for developers



web apps vs. native apps

web apps

- limited scope
- multiple browsers → expensive & difficult
- difficult to discover
- no regularized quality control

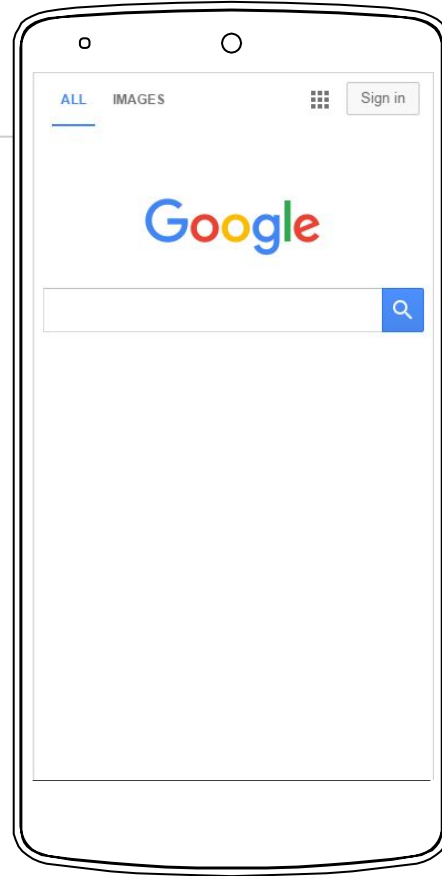
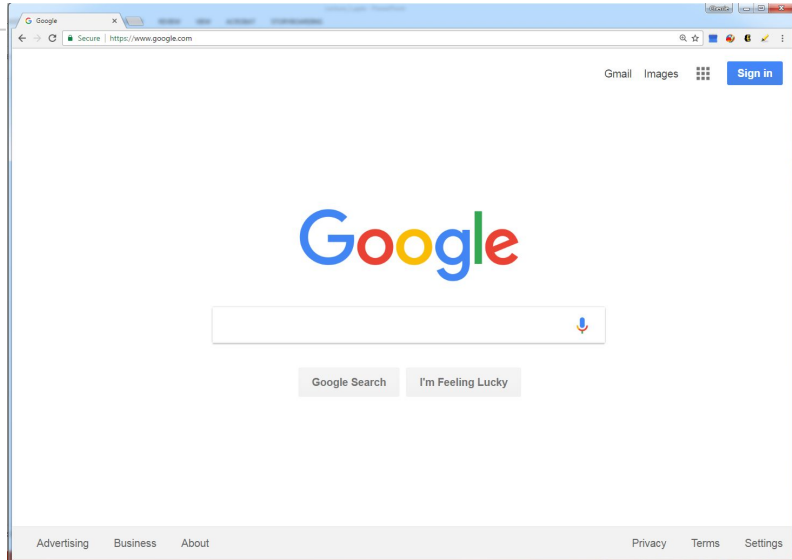
native apps

- cost of app maintenance
- different versions of the app → difficult



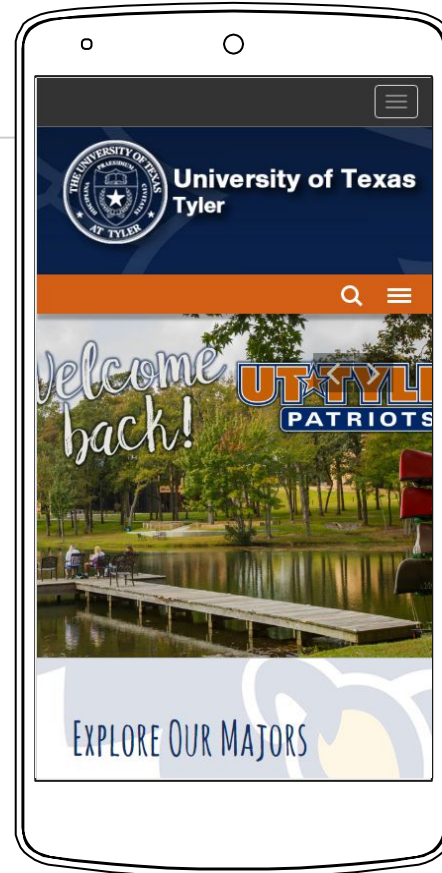
web apps vs. native apps







Is it mobile friendly?





HTML

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01  
Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">  
<html>  
  <head>  
    <title>Hello World Example</title>  
  </head>  
  <body>  
    <h1>Hello World</h1>  
    <p>  
      Hey there!  
    </p>  
  </body>  
</html>
```




HTML5

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML5 : Hello World Example</title>
  </head>
  <body>
    <h1>Hello World</h1>
    <p>
      Hey there!
    </p>
  </body>
</html>
```



CSS

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML5 : Hello World Example</title>
    <link href="style.css" rel="stylesheet"
type="text/css" />
  </head>
  <body>
    <h1>Hello World</h1>
    <p>
      Hey there!
    </p>
  </body>
</html>
```

viewport

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





viewport

height

initial-scale

maximum-scale

minimum-scale

user-scalable

width

apple-touch-icon.png

```
<!-- third-generation iPad with high-resolution Retina display: -->  
<link rel="apple-touch-icon-precomposed" sizes="144x144" href="custom_icon.png" />
```



apple-touch-icon-precomposed.png

```
<!-- non-Retina iPhone, iPod Touch, and Android 2.1+ devices: -->  
<link rel="apple-touch-icon-precomposed" href="custom_icon.png" />
```



JavaScript

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





JavaScript

```
<script>
```

```
...
```

```
</script>
```




JavaScript

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML5 : Hello World Example</title>
    <meta name="viewport" content="width=device-width"/>
    <link href="style.css" rel="stylesheet" type="text/css" />
    <script src="scripts.js"></script>
  </head>
  <body>
    <h1>Hello World</h1>
    <script>
      window.alert(5 + 6);
    </script>
  </body>
</html>
```



third-party frameworks

- ◉ jQT
- ◉ PhoneGap
- ◉ Sencha Touch
- ◉ Corona. . .



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