Mobile Development

Issues:

- Market Share
- Are we talking about OS or hardware?
Intro to Mobile Development

Mobile OS Market Share

- Android
- Symbian
- iOS
- RIM
- Microsoft
- Bada
- Linux
- Other

Source: Gartner Research
Intro to Mobile Development

**Smartphone Manufacturer Share by Operating System**

**Q2 2013, US Mobile Subscribers**

- **Android OS**
- **Apple iOS**
- **Windows Phone**
- **Blackberry**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Share (Android OS)</th>
<th>Share (Apple iOS)</th>
<th>Share (Windows Phone)</th>
<th>Share (Blackberry)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple</td>
<td></td>
<td>40%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Samsung</td>
<td>24%</td>
<td></td>
<td>.7%</td>
<td></td>
</tr>
<tr>
<td>HTC</td>
<td>9%</td>
<td>.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motorola</td>
<td>9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LG</td>
<td>7%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RIM</td>
<td>3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>2%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nokia</td>
<td>1.2%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Huawei</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Read as: During Q2 2013, 24% of U.S. smartphone owners used Samsung's Android handsets and .7% had Samsung Windows Phone handsets.

Source: Nielsen

## Worldwide Smartphone Sales to End Users by Vendor in 3Q13 (Thousands of Units)

<table>
<thead>
<tr>
<th>Company</th>
<th>3Q13 Units</th>
<th>3Q13 Market Share (%)</th>
<th>3Q12 Units</th>
<th>3Q12 Market Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samsung</td>
<td>80,356.8</td>
<td>32.1</td>
<td>55,054.2</td>
<td>32.1</td>
</tr>
<tr>
<td>Apple</td>
<td>30,330.0</td>
<td>12.1</td>
<td>24,620.3</td>
<td>14.3</td>
</tr>
<tr>
<td>Lenovo</td>
<td>12,882.0</td>
<td>5.1</td>
<td>6,981.0</td>
<td>4.1</td>
</tr>
<tr>
<td>LG Electronics</td>
<td>12,055.4</td>
<td>4.8</td>
<td>6,986.1</td>
<td>4.1</td>
</tr>
<tr>
<td>Huawei</td>
<td>11,665.7</td>
<td>4.7</td>
<td>7,804.3</td>
<td>4.5</td>
</tr>
<tr>
<td>Others</td>
<td>10,294.1</td>
<td>41.1</td>
<td>70,206.8</td>
<td>40.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250,231.7</strong></td>
<td><strong>100.0</strong></td>
<td><strong>171,652.7</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: Gartner (November 2013)
Intro to Mobile Development

Smartphone manufacturer share by operating system

Q2 2012, US mobile subscribers

- Samsung 17%
- HTC 14%
- Motorola 11%
- Other 9%
- Apple 34%
- RIM 9%
- Nokia 0.9%
- HTC 0.5%
- Palm 0.6%
- Other 0.2%

Source: Nielsen

Age and operating system share—smartphones

Nov ’10 - Jan 11, postpaid mobile subscribers, n=14,701

Source: The Nielsen Company.

Source: http://blog.nielsen.com/nielsenwire/online_mobile/who-is-winning-the-u-s-smartphone-battle/
Mobile Development

Issues:

- Stores
  - iTunes
  - Android
  - Blackberry
  - OVI
- Microsoft
Issues:

- Programming Languages
  - C++
  - C#
  - Java
  - Objective-C
  - Python
  - Others?
Mobile Development

Issues:

- Device Variability
  - Android
  - Microsoft (Nokia)
  - Apple
  - Blackberry
Mobile Development

Issues:

- Programmer Freedom
  - Distribution
  - Background Processes
  - Device Access
  - Profit Models
    - Pay per app
    - In-app payments