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CSCI 373 Presentation

1. **Introduction**
   1. Title and Brief explanation of Hybrid Apps
   2. Overview
      1. Background
      2. Problems in Native Development
      3. Hybrid Development as a Solution
      4. Live Demo
      5. Future of Mobile Development
2. **Background**
   1. Mobile Devices back to late 1990s – PalmOS
   2. 2000 – Java 2 ME
      1. Unite development, provide one framework to run on all devices
   3. 2003 – BlackBerry
   4. 2007 – iPhone, Android
   5. 2010 – Windows Phone
   6. Current Mobile Market Share
   7. Leads to question? **How has development been done in the past?**
      1. PalmOS – C/C++
      2. BlackBerry – Java, eventual adoption of J2ME
      3. iPhone – Web Only
         1. Android – SDK!
         2. iPhone soon own SDK
      4. Everyone had their own SDKs and tools
3. **Problems in Native Development**
   1. Development Time
      1. Study of students developing same app roughly same across platforms
         1. iOS takes slight longer
   2. Required Knowledge
   3. Multiple Code Bases
      1. Not a whole lot of code can be shared between apps
      2. REDUNDACNY! MOTHER OF ALL EVIL
         1. Inconsistencies more likely
         2. Updating more difficult and time consuming
         3. Maintenance
   4. COSTS!
   5. Already we have unsustainable development approach, plagued with
4. **Hybrid Development**
   1. Common Language
      1. Web Stack + SDK
      2. Capture High level actions in language
      3. Cross-compiled
         1. Separate complete native code for each device
            1. A little more difficult to do
      4. Interpretive
         1. JavaScript interpreter included
         2. Look and Feel - SDK build native parts
         3. System and Hardware access
   2. Write Once – Run Everywhere
   3. Fixes Native Problems
      1. **What does this offer us to fix that problems native development causes?**
         1. Less development times
         2. No extra knowledge required, just HTML/JS
         3. Extremely efficient code reuse
            1. 90%!
         4. Cost
   4. Summary of Hybrid Development
5. Appcelerator Titanium