CSE 4/60827: Ubiquitous Computing

Ipod Touch/Iphone Development Tutorial

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Tutorial Summary

- **Apple Admin. Issues**

- **The Iphone SDK**
  - Xcode – The apple iPhone SDK
    - Interface Builder – Component for Rapid Prototyping
    - iPhone Simulator
      (Instruments and shark, for code performance related measurements)

- **Sample App:**
  - Hello world Touch based application
  - Porting applications to actual iphone/ipod Touch
Apple Admin Issues

- **First things first:**
  - Register on apple.iphone developer website:  
    - Use your school e-mail to register, you will receive invitation to join our class developer Team

- **Lab Setup:**
  - 4 apple intel based MAC minis (Need MAC OS X 10.5.X and higher to run the SDK)
  - Iphone 3.0 SDK installed on all of them
  - Ipod touches using OS 3.0 and OS 2.21
  - Ready for development
The Iphone SDK

- **XCode:** Apple Iphone IDE
  (/Developer/Applications/Xcode.app)
  - Allows rapid building of applications for the iPod
    Touch/Iphone
  - Objective C – Based on Smalltalk, extends C to be
    fully object oriented
  - Cocoa Touch - Framework of libraries, APIs and
    runtimes that form development layer for all MAC OS
    X, implemented in objective C; tuned for touch based
    Apps
  - iPhone Simulator – simulates touch interface/ iphone
  - Interface Builder – Allows rapid prototyping of
    application interface by adding on GUI widgets
Sample App Tutorials:

- Touch Based hello World application:
  - http://www.youtube.com/watch?v=OEkTjEXx3BY

- Tab Bar with Web View on each Page
  - http://www.youtube.com/watch?v=O6NUhngTASk
Porting to actual iPhone

(All instructions on Apple iphone Dev Center)

- Step 1: Upon registration, request for Development Certificate using KeyChain in apple utilities.

- Step 2: upload generated file using developer site to request us for a development certificate

- Step 3: You will be added to provisioning profile. For the meantime, Use existing one already installed on the MAC mini
Provisioning Profile

Name: cse40827_DARTS
Creation Date: Sep 3, 2009 5:54 PM
Expiration Date: Dec 2, 2009 4:54 PM
Profile Identifier: F352E168-E2E5-421B-9C62-82A047749F5
App Identifier: JCFJ783HPC.com.darts.iphoneapps

Included Devices

<table>
<thead>
<tr>
<th>Device Name</th>
<th>Installed</th>
</tr>
</thead>
<tbody>
<tr>
<td>DARTS_iPodTouch2</td>
<td>Installed</td>
</tr>
<tr>
<td>DARTS_iPodTouch3</td>
<td>Installed</td>
</tr>
<tr>
<td>NDARTS_iPod1</td>
<td>Installed</td>
</tr>
<tr>
<td>7 other devices</td>
<td></td>
</tr>
</tbody>
</table>
Resources for Development:

- Apple iPhone Dev Center Online
- Development Books in the Lab
- Office hours 😊
Thank you

- Questions?