Introduction to AppInventor

Alark Joshi, Amit Jain, Sydney Crabtree

Slide credits: appinventor.org/appInventorIntro
What is AppInventor?

• AppInventor is a visual “blocks” programming language

• Allows you to create mobile apps for the Android platform
Why AppInventor?

• Promotes creativity and eliminates annoying details
• Engaging and exciting
• Ability to share your app with anyone in the world
• Ideal for teaching an introductory computer science course to middle-school and high-school students
Blocks programming language

- AppInventor is a “blocks programming” language
- What is “blocks programming”?  
  – Similar to Blockly

- What was interesting/engaging about Blockly?
"Blocks" programming

• Actions are clear
“Blocks” programming

• All possible actions are clearly listed
“Blocks” programming

• Errors are mostly avoided due to the nature of the blocks
• Built-in modules for fast development
  – Go from an idea to an app quickly
• Easy and fun to make your own apps!
What can you build with AppInventor?

Games
- Android, Where's my car?
- Text Processing Apps

Quizzes

Location Aware Apps

Web Enabled Apps

Broadcast Hubs
AppInventor Components

- AppInventor has the following three components:
  1. Component Designer (Web-based)
  2. Blocks Editor (Web-based)
  3. Emulator/Mobile Device
AppInventor 2: Component Designer
AppInventor 2: Blocks Editor
Lets make an App

• Talk to Me 😊
  – Version 1
    • A button, when clicked says a pre-canned message
  – Version 2
    • Add a textbox that allows the user to type the message that should be spoken by the device
    • When the device is shaken, it admonishes the user
Getting Started

• You need a Gmail account
• You need Chrome or Firefox (IE is not supported at present)
• Go to http://ai2.appinventor.mit.edu/ and sign in using your Gmail account
• Install the free MIT AI2 Companion app on your Android device
Connecting your Android device over WiFi

- Select Connect → AI Companion

- Start the MIT AI2 Companion app and either scan the QR code or enter the code sown in the connect window

- Both your laptop and device HAVE to be on the same WiFi network for this to work!
Other ways of connecting

• Use USB connection if WiFi isn’t available
• Use an Emulator if you don’t have an Android device
• Instructions are on the setup page: http://appinventor.mit.edu/explore/ai2/setup.html
Setup is Complete!

• The WiFi (and USB) connection is a live connection where any changes in your App show up immediately on your device. If the connection is broken, then the app is gone from your device.

• We can also build the App as an Android package (apk file) from the Build menu and then install it on our device. Then the app is actually installed on the phone and stays on it unless you remove it.
Create your first app!

• Go to the following website to find the HelloBunny tutorial:
  – http://coen.boisestate.edu/idocode/cc1/
  – HelloBunny app

• You can also recreate the TalkToMe app.
  – Play with the speech pitch and speed rate!