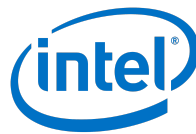




ANDROID APP DEVELOPMENT

Building Mobile Applications

Session 1



YELLOW CIRCLE INC
PO Box 2383
Elk Grove, CA 95759-2383

Teacher Lesson Plan

Building Mobile Applications

Session Name:

Building Mobile Apps

Summary:

This course teaches the basics of mobile app development using the App Inventor development tool.

Time Allotment:

75 minutes

Learning Objectives:

- *History and usage of Android Platform.*
- *Introduction to MIT's App Inventor Platform*
- *Setup Google Account for App Inventor*

Supplies:

- *Scrap paper / notepad to take notes*
- *Android tablet*
- *Laptop / computer with Internet access*

Learning Activities:

- **(5 minutes) - Teacher Introduction**

Introduce yourself to students if you are new to the classroom. Tell students about your day job, any interests, and something interesting.

- **(10 minutes) - Volunteers Introduction**

Introduce classroom volunteers. Let each one talk a about their work, interests, etc.

- **(5 minutes) - Session overview**



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Building Mobile Applications

During this lesson, we will become familiar with the App Inventor development tool. We will build a mobile app together and then you will use what you have learned to modify and customize the app.

- *Intro to App Development*
- *App Inventor Tool*
- *Building Apps In App Inventor*

- **(10 minutes) - Main Topic Introduction**

Mobile Apps are a popular way to deliver content

- *Over 175 billion apps were be downloaded in 2017.*
- *Mobile apps generated over \$86 billion*

Average Smartphone User

- *80 apps on phone*
- *Uses about 40 apps each month*
- *Time using apps - about 3 hours a day*
<https://techcrunch.com/2018/01/17/global-app-downloads-topped-175-billion-in-2017-revenue-surpassed-86-billion/>

- **(10 minutes) - Introduction to App Inventor Tool**

What is the App Inventor Tool?

- *MIT App Inventor is an intuitive, visual programming environment that allows everyone ... to build fully functional apps for smartphones and tablets.*

- *<http://appinventor.mit.edu/explore/about-us.html>*

- **(15 minutes) - Setup & Testing Prep**

You Will Need:

- *Google Account*
- *Computer*
- *Android Device (preferred)*



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Building Mobile Applications

- *MIT AI2 Companion App*
 - *(optional info) an emulator is also available for App Inventor testing, but is not addressed in the class - does not allow testing of sensor elements (e.g. shake)*
- *Access App Inventor*
 - *Using your Google Account*
 - *Login to: <http://ai2.appinventor.mit.edu>*
 - *Confirm that students are able to access and log into App Inventor before beginning*
- **(15 minutes) App Inventor Designer & Blocks Editor**

Designer

 - *Used for designing how the app will look to the user*
 - *The app “user interface”*
 - *This is also where you add non-visible user input features (e.g. AccelerometerSensor for shake inputs)*

Blocks Editor

 - *Used for designing the app behavior*
 - *The app “programming”*
- **(10 minutes) - Video: An introduction to App Inventor**

https://www.youtube.com/watch?v=nC_x9iOby0g
- **(2 minutes) - What’s next?**

Inform students to head back to cafeteria for a 15 minutes break, and remind them to use restroom before next session starts.