



BCSWomen Android Family Fun day Presenters' outline: GWR version!

BCSWomen
Specialist Group

This document provides timings and tips for presenters, and will presumably grow as the workshop runs

Version 2.0

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- b) release any versions you develop yourself, using a similar license (so if you make something cool with this, you've got to give it away too). More information here:

<http://creativecommons.org/licenses/by-sa/3.0/>

The current version will be kept at <http://www.hannahdee.eu/appinventor> along with all other materials. If you've any suggestions for improvements, let me know on hmd@hannahdee.eu and I'll incorporate them in future versions

Overview

This workshop is based on family groups coming along and having a go at programming android phones and tablets, through using MIT AppInventor. It's basically got four stages

- Getting the software going
- Following instructions to build an app
- Editing an app
- Building your own app

And the workshop takes about 4.5 hours, including breaks.

Schedule & timings

10:30am – 11:30am	10 mins talk : welcome, getting started, who we are, what's an
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<p>Skills and outcomes: starting appinventor, following instructions to the letter to make the first app, understanding the difference between layout and blocks</p>	<p>android, what's an app, GWR admin</p> <p>10 mins setup: start AppInventor, look around,</p> <p>10 mins talk: anatomy of appinventor [overview, blocks editor, emulator]</p> <p>40 mins coding: do the meow application. Make sure everyone has a working installation and can get the blocks talking to the main editor and to the emulator</p>
<p>11:30am</p>	<p>coffee break</p>
<p>11:45am – 1:00pm Skills & outcomes: editing code, understanding mobile, groupwork, planning and brainstorming</p>	<p>10 mins talk: what's special about mobile</p> <p>20 mins coding: changing your first program: make the meow app work when you shake the phone, make it make the phone vibrate</p> <p>10 mins chaos: getting it from the computer to your phones and tablets, doing a cats chorus (get everyone's phone to meow)</p> <p>5 mins: organisation getting into small groups, come up with a group name</p> <p>10 mins: app overview give an overview of the sample apps, quickly explain what's going on</p> <p>10 mins small group brainstorming: Think about roles – do you need pictures for your app? Do you need sounds?</p> <p>10 mins going round the room: what is each group going to make?</p>
<p>1:00pm - 1:45pm</p>	<p>lunch (and app planning)</p>
<p>1:45pm – 2:40pm Skills and outcomes: creating both layout and code from scratch</p>	<p>coding and testing your apps in small groups:</p> <p>5 mins paper: draw what you want it to look like</p> <p>50 mins coding</p>
<p>2:40pm</p>	<p>10 mins going round the room: See what everyone has built (this can slip back if necessary, and lose time from the wrapup)</p>
<p>2:50pm</p>	<p>10 mins talk: Congratulations on making your first app; here are the next steps (for younger kids – more appinventor, maybe a bit of scratch; for early teens - python for games programming on the desktop; for older kids and grownups - maybe move towards proper app programming)</p>
<p>3:00pm</p>	<p>Close</p>

Kit list

- Paper,
- Pens
- Printed handouts

- a laptop to run the projection
- A couple of android devices if possible
- Spare multi-plug adaptors, USB to android phone sized micro USB adaptors (enabling charging of phones from laptops etc)

Space/room requirements

- Room with tables arranged “cabaret style” (e.g., space for people to sit at a laptop)
- Wifi
- Projector & screen
- Microphone/amplification if the room is large

Other things that worked well:

- Having a cafe nearby
- Having outdoor space for kids

On USB sticks

If at all possible prepare a bunch of USB sticks. Ideally one each. These should contain

- The materials (this document, the slides, the handout)
- Resources (1st activity, 2nd activity, animals, drum sounds, sample projects, various) – these are available as resources.zip from <http://www.hannahdee.eu/appinventor>

If you can't get USB sticks, make a zip of the materials available for download.

The minimum you'd have to know to run this

There's a train the trainer page at <http://users.aber.ac.uk/hmd1/appinventor/ttt.html>

This has all you need to know

General hints and tips

- Family groups are good; there's a natural mix of ages and skills. If the younger members don't get it, the older ones can help (and vice versa). At several points in the slides/timings we talk about “getting into groups”; it seems this is not always necessary with family days.
 - So there's a chance you can skip a lot of the get into groups stuff, but it's useful to check there aren't any singletons or groups that are really struggling.
- It could be a good idea to run the day with two start times: 10am for those who haven't installed AppInventor, and 11am for those who have. The installation phase is the most irritating. I have not tried this though
- If you can't get hold of a bunch of USB sticks, allow a **lot** more time for setup
- There are animal noises and pictures, and a bunch of drum sounds, included in the resources file. I recommend you use these as a backup plan and steer less confident programmers towards the idea of a drumkit or farmyard app.
- Don't assume that the smaller kids are not going to get it, some of them will really fly.