

Coding for Development and Social Change, 2014

Introduction

What we're doing here

Why are we here?

- ❖ Build software quickly - for hackathons, competitions, funding
- ❖ Stop hand-waving and start making stuff
- ❖ Understand what coders do
- ❖ Get some cool tools and skills

Who's helping?

- ❖ Prof:
 - ❖ Sara-Jayne Terp (bodacea on github)
- ❖ Teaching Assistants:
 - ❖ Lin He
 - ❖ Talha Ansari
 - ❖ Henrique Gubert

This Weekend

- ❖ Friday: basic concepts, set up tools
- ❖ Saturday: the web, frameworks, turning your ideas into code
- ❖ Sunday: coding for development, more turning ideas into code, how to continue your journey

Some of you have to leave for an hour or two

- ❖ To go to church, lectures, etc (nb “hangover” doesn’t count)
- ❖ That’s okay... these things happen
- ❖ All slides are online, with notes
- ❖ And we have “activity sessions”, designed to help you get further

Why are you here?

- ❖ ...tell me what you want to get out of this weekend...

What you will learn this weekend

- ❖ Basics of a computing language
- ❖ Basics of creating an application
- ❖ Tools and places to help you

What you won't learn this weekend (and where to find resources for it)

- ❖ Mobile phone programming
- ❖ Python
- ❖ Specific application areas like data science

(Resources for these: Stack overflow, Codecademy, Coursera, MITx)

Hardware

- ❖ Mac / OS, PC / Windows, PC / Linux
- ❖ Smartphones, feature phones
- ❖ Tablets
- ❖ Microprocessors (Arduino, RaspberryPi etc)

Lots of Programming languages, but very few core concepts

- ❖ Php
- ❖ Python
- ❖ Ruby
- ❖ Javascript
- ❖ Java
- ❖ C, C++, C#, Objective C, sql, Erlang, Matlab, R, Processing

(see also: <http://mashable.com/2014/01/21/learn-programming-languages/>
and http://en.wikipedia.org/wiki/List_of_programming_languages)

Hello World...

❖ Ruby:

❖ `puts "Hello, World!"`

❖ Python:

❖ `print('Hello, World!');`

❖ Php:

❖ `echo "Hello, World!\n";`

(more examples: <http://hyperpolyglot.org/scripting2>)

Ruby

- ❖ Easy language to learn - less “clutter” to go wrong
- ❖ Has lots of helpful features to get websites up and running quickly
- ❖ Really friendly communities

Help after this weekend

- ❖ Stack Overflow
- ❖ Rails Guides / Beginner Cheat Sheets
- ❖ Ruby Weekly
- ❖ Local Ruby on Rails meetups
- ❖ Rails Hotline
- ❖ RailsMentors