

?



# mobile application design

week 6: Where am I? AKA Location x 3

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Presentation: Max + Vincent

Review: Homework / Setup

# Presentation

# Homework Review:

# Tips'n'tricks: XML Edition

Check The Details

**XML Parsing Error: mismatched tag. Expected: </description>.**  
**Location: [http://uberthings.com/teaching/mobile\\_application\\_design/5/fake\\_make\\_bad.xml](http://uberthings.com/teaching/mobile_application_design/5/fake_make_bad.xml)**  
**Line Number 907, Column 3:**

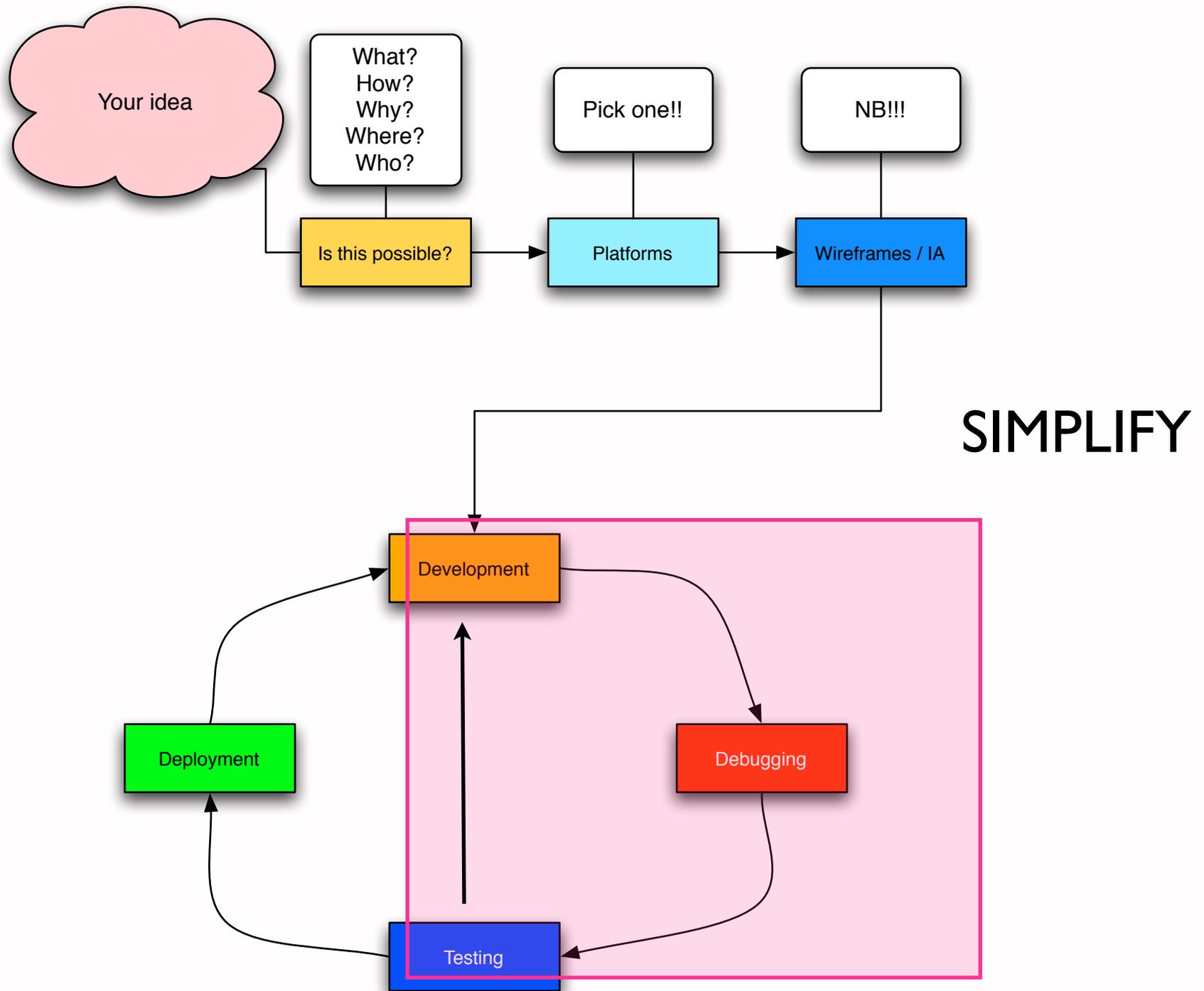
```
</item>  
--^
```

```
716
717 </item>
718
719 <item>...
736
737 <item>...
756
757 <item>...
777
778 <item>...
797
798 <item>...
820
821 <item>...
840
841 <item>...
870
871 <item>...
893 <item>
894 <title>Homemade Commodore 64 joystick</title>
895 <description>
896
897 <p><br />
898 </p>
899
900 </item>
901 </feed>
```

# XML Gotchas

- Keep it simple
- Start small (<hello>world</hello>)
- Work your way up to RSS
- Validating is easy
- XML Parsers are strict and unforgiving (mostly)

# Sample Mobile Development Process



Where Am I?

# Finding yourself

- Many many ways
- Read Chris Heathcote's eTel presentation
  - 35 Ways to find your location

[http://conferences.oreillynet.com/cs/et2004/view/e\\_sess/4657](http://conferences.oreillynet.com/cs/et2004/view/e_sess/4657)

- A few more than that these days
- Location API (JSR-179)
  - `javax.microedition.location`

# Methods of Location

- GSM-positioning
- OTD - Observer Time Difference
- EOTD - Enhanced - OTD
- TDOA - Time Difference of Arrival
- GPS - Global Positioning system

# Switch

Detailed explanations by Johan Montelius

<http://www.it.kth.se/courses/2G1722/lectures/positioning.pdf>

# Location + web

- Geocoding - via Yahoo!, Google, Ask.com, geocoder.us
- Reverse geocoding (via Autodesk, ESRI et al)
- TIGER / Line data
- Other GIS services

# US Options

- Nextel / Boost
  - iDEN network
  - MIDP 2.0 + A-GPS
  - J2ME access to the GPS device (for free!!)
- Verizon
  - BREW = boo!

# iDEN SDK + GPS Demo