Simple Android JSON Parser

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Overview

• My first Android app as a developer
• Learn more about JSON
• Learn about UI layouts in the mobile space.
JSON Parser Design

• Use of recursion; Few lines of code
• Arrays were harder.
JSON Parser Design

- Process one layer as base case.
- Keep the remainder for recursive case.
- FHIR DSTU2 element depth level causes no stack problems.
JSON Parser Design

• Drills into array index on a named object.
  – Anonymous arrays can’t be indexed!
• Could arrays be handled generically?
JSON Parser Design

- Returns functional JSON object.
UI Layout Design

- Was more difficult to get right than I imagined.
  - Widgets off the screen
  - Button in the middle of the screen
UI Layout Design

Looks great until ...

Widget 1
Widget 2
Widget 3
Widget 4
Widget 5

portrait

landscape
UI Layout Design

• Use layout that optimizes use of coordinates of the screen.

portrait

landscape
Next Steps

• Testing on a tablet
• Account for virtual keyboard taking up space
• Incorporate REST client capability
• Potentially optimize parsing of JSON arrays.