

Cincinnati Android Developers & GDG Cincinnati

5th Wednesday Coding Challenge

Agenda

- Objective
- Prerequisites
- Rules of Engagement
- Timeline
- **Challenge Presentation**

What are you doing here?

This is a coding challenge. Momentarily you will be presented with a set of requirements and your goal will be to build an app that addresses as many of those requirements as you can accomplish in the allotted time.

Prerequisites

- Each participant should arrive with their laptop preconfigured with a complete Android development environment:
 - Eclipse & ADT Plugin for Eclipse
 - Android SDK(s)
 - Ability to test your code on an emulator or physical device
- **This is not a teaching event.** Complete Android's "Hello World" & "Notepad" examples before arrival.

Rules of Engagement

- Coding for the challenge must be completed during the challenge
- Searching the Internet for answers is acceptable
- Using code snippets from existing codebase is acceptable (within reason)

Timeline

- 15-20 minutes of hype, stage setting and challenge unveiling
- **2 hours of coding**
- 1-2 hours of solution presentations, Q&A and open discussion
- Identify winner(s)

Android Fu:

Weather Underground

Weather Underground

The net-net-net of what we do very often in mobile development is get and display content.

Novice Level Achievements

- Display the current weather conditions for a hardcoded location in as pretty a fashion as your design skills will allow :)
- At a minimum, display
 - Location Name
 - Current temp and humidity
 - Forecasted high/low temp
 - Wind speed & direction
 - Time data collected
- Add a refresh button

Int. Level Achievements

- Show the images provided for the current conditions
- Add as many fields from the API as you feel necessary
- Allow the user to choose the icon set being used
- Add a 3-day planner OR an hourly forecast
- Save view state

Adv. Level Achievements

- Allow the user to modify the current location via search to include current geolocation
- Mobile - Design for portrait and landscape
- Web - Use responsive (or adaptive) design and account for desktop, tablet and phone form factors
- Display an extended forecast day-by-day in a carousel with each panel/pane representing 1 day's conditions

Adv. Level Achievements

- Periodically update the data with a long-running background service

Master Level Achievements

- Store a history of viewed locations for quick selection
- Periodically check for weather alerts and display a notification to the user
 - Alternatively, have a server query for alerts and push notifications to your platform
- Allow the user to customize the application in some way like setting a background photo from the gallery or the camera

Master Level Achievements

- Allow user to Favorite locations to show multiple location forecasts
- Use Day/Night themes and toggle based on current time in forecasts' location

Useful Information

<http://www.wunderground.com/weather/api/d/docs>

<https://github.com/androidfu/WeatherUndergroundExample>

<http://jsonlint.com/>

<http://www.jsonschema2pojo.org/>



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