Mobile Application (Design and) Development

18th class

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Today

- Schedule code reviews / Q&A?
- Next programming assignment
- Track/fix your bugs!
- App competition – how it will work
- Q&A
- Useful features/tools to be aware of

Sound

- MediaPlayer
  - start()
  - setOnCompletionListener()
- Formats:
  - Wav (PCM uncompressed), AAC, MP3, WMA, AMR, OGG, MIDI
  - Native: 44.1kHz 16 bit stereo
  - Best sampling: 11kHz, 22kHz, or 44.1kHz
  - Remember headphones
  - Good free recording tool: audacity

Video

- Formats:
  - MP4 (MPEG-4 low bit rate)
  - H.263 (3GP)
  - H.264 (AVC)

- Recommended resolution:
  - http://developer.android.com/guide/appendix/media-formats.html

Widget

- Miniature application view for home screen

- Max 30min updates (updatePeriodMillis)
  - More frequent update requires AlarmManager

- Design guidelines: http://developer.android.com/guide/practices/ui_guidelines/widget_design.html

More useful stuff

- AlarmService example
- App: Notification
- App: Text to speech
- App: Voice recognition
  - Example: Handcent SMS
- Graphics: Camera preview
- Graphics: Measure text
- Graphics: Path effects

More useful stuff

- Graphics: Text align
- OS: Sensors
- Text: Linkify
- Views: AutoComplete
- Jetplayer
- USB Host (3.1+ on some devices)
- Near field communication (2.3+, Nexus S)
- Session Initiation Protocol(SIP) (VOIP) (3.1+)