**Capstone Project**

**Core functionality is to synchronize Android notifications to Windows 10**

## Windows Client

* Receive Android Notifications
  + Ability to reply to text messages that android device receives
  + In each notification, shows the icon of the app + same format as android notifications
* UI
  + Material Design makes use of native windows 10 features (Action Center, Native notification support, start menu tile support, taskbar icon, etc.)
  + When client displays a text notification, user can reply to the text right from notification (think what mac OS does)
* Client acts as the server
  + Connect through LAN
  + Potential Bluetooth, USB connection alternative support

## Android App

* Send notifications to windows client
  + Scrape notification data
    - Get app icon, name, and any other format info, as well as notification data and send as JSON format to windows client
  + Text message support
    - Support for any notifications that use the standard android ‘reply’ feature
    - Send the messages and replies from the notification to windows client
    - Get replies from windows client, then send them
      * If an SMS message, send messages directly from app
    - Send contact info (if applicable) to windows client along with text notification data
* Connects to windows client
  + Main connection method is LAN
    - UDP scanning of network, to be able to list windows clients on the network, automatic configuration of connection
  + Potential other connection methods
    - Bluetooth or USB connection support
* UI
  + Card design within app when listing available servers, or listing sent notifications
  + Standard android material design
  + Makes use of as many of the features that Android API offers as possible, in order for more streamlined UX
  + Requests permissions as needed, or can grant them within the settings of the app
  + Able to connect to windows client with manual settings
  + Sidebar menu to navigate the app
  + Persistent notification when connected to windows client

## Potential Future Features

* Sync
  + Ability to synchronize photos, music, files, contacts, etc.
  + Two-way mouse and keyboard sharing
    - Windows -> Android
      * Use Android’s built in cursor
      * App can be chosen as input method for proper windows keyboard input into android (much like a Bluetooth keyboard)
      * Captures window’s keyboard and mouse and sends the input to the android device
    - Android -> Windows
      * Use screen like a touch pad
      * Keyboard input
* Two-way notification support
  + Not only android notifications to windows, but windows notifications to android