

Purpose of Project/Initial Problem:

We are currently using dedicated purpose time clocks for tracking time for hourly workers.  We would like to replace these devices for several reasons:

* Save cost of devices (dedicated clocks are $1700-$1800 versus cost of tablet)
* Make repair/replacement easier (more vendors available)
* Enable use of clock replacements for other purposes
* Enable usage of personal phones to clock in/out from specific areas inside facility

1. Select mobile device to replace existing dedicated purpose clock.  Considerations include cost, durability, and ongoing maintenance/support.
2. Develop application that allows users to punch in/out.  Requirements include:
   1. Runs on any platforms, especially Android, IOS and Windows
   2. Has ability to run in connected & disconnected mode
   3. Has ability to identify user
      1. Minimally, must be able to scan badge
      2. Optimally, use biometrics
   4. Receives and stores basic information (employee, department) from central source
   5. Ease of use - minimal user touches to clock in
3. Propose alternate uses for mobile clocks.
4. Optional (as time permits): Enable ability for users to use personal phone to punch in/out.  Note that this must be restricted to certain areas within the building.  Ideas for implementing include geo-fencing and near field communication, but we are open to other ideas that meet these needs.

Approach/Framework:

* Java Angular 1
* Andriod Studio
* REST API
* External Barcode

Tooling Gordon Food Service makes use of Java and Angular 1 within their current software products. In order to achieve long-term supportability, we be using related tools in either the Java ecosystem, such as Android, should be pursue a native application, or Angular for a hybrid web-native application. Since we require hardware access, either to use a scanner or camera to process barcodes, a web application independent from hardware is not an option.

Later features:

Title: GFS Time Clock

Collaborators:

Kent Sinclair, Emily Peterson, Thanh Nguyen assisted by GFS Team