TEAM: Team FitByte

Overview: The main purpose of the "Technical Demos" is to very clearly communicate the extent to which the team has identified key challenges in the project, and has proven solutions to those challenges. Grading is based on how complete/accurate the list of challenges is, , and how convincingly and completely the given demos cover the given challenges.

This template is fleshed out by the team, approved by CS mentor, and brought to demo as a grading sheet.

Risky technical challenges

Based on our requirements acquisition work and current understanding of the problem and envisioned solution, the following are the key technical challenges that we will need to overcome in implementing our solution:

C1: Grabbing Info from a database. The information that WearWare stores is put into a database and the team needs to grab the information to further process it. We plan to do this by creating a program that will grab the information and put it into a JSON. We also plan to get this data another way to perform analysis on the set.

C2: Notifying the End User. Our sponsor wants us to provide text notifications to the FitBit user when certain events occur. This will be accomplished by using an SMS API called Twilio to send messages and Octave to find when certain conditions are met.

C3: Connection with Team at University of Delaware. The team needs to make the project data accessible to the other team. We need to make sure that what we are doing is working for them.

Challenges covered by demos:

In this section, we outline the demonstrations we have prepared, and exactly which of the challenge(s) each one of them proves a solution to.

Demonstration 1: API

Challenges addressed: C1/C3

Flight Plan: Step by step overview of demo

1. Bring up the code for API and dummy database and explain it
2. Ensure API & dummy database are up and running
3. Enter correctly formatted URL into browser
4. View returned results to verify correctness

Evaluation:

- ✓ Convincingly demo'd each of listed challenges?
- ✓ Other evaluative comments:

Demonstration 2: Demonstrate Octave functionality

Challenges addressed: C2

Flight Plan:

1. Bring up the code and briefly explain it
2. Run the Octave code
3. Show that the code imports a CSV of Fitbit data and many factors of the set,

Evaluation:

- ✓ Convincingly demo'd each of listed challenges?
- ✓ Other evaluative comments:

Demonstration 3: Demonstrate SMS functionality

Challenges addressed: C2

Flight Plan:

4. Bring up the code and explain it
5. Run the program using python
6. Show that text was sent.
7. Repeat with a different message

Evaluation:

- ✓ Convincingly demo'd each of listed challenges?
- ✓ Other evaluative comments:

Other challenges recognized by not addressed by demo:

- Hosting on AWS server/database. We plan to test using Linux since most Amazon EC2 instances can be run on Linux, so we can test on a local machine before pushing to the server. Amazon also has a large supply of documentation to help solve problems if need be.