Introduction/Dates

January 22 Sponsor Presentations
January 29 Project Selection Presentations
March 19th Project presentation
May 21 Feature Freeze and Delivery
June 11 Final presentation

Skills for Developing Software Products

- Organization
- Coordination
- Communication (internal and external)
- Planning and Documentation
- Just-in-time learning
- Effective meetings
- Working in teams

Team Meetings

Tuesday/Thursday meetings

Stages of teams

Stage 1: Forming
Stage 2: Storming
Stage 3: Norming
Stage 4: Performing
Stage 5: Adjourning

Team Contract

Purpose is to accelerate the team's development, to increase individual accountability and to reduce the possibility for team conflict.

- Establish team procedures
- Identifying expectations
- Specifying the consequences for failing to follow these procedures and fulfill these expectations
- Specifying tasks and roles, including down to the person and who is going to take on roles
- Roadmaps $--> $ specify time and place for completion of parts

Guiding Principles

Resolving disagreements rather than buring them
over riding concern is meeting the sponsor's needs
Look for what will work, not what is wrong
Speak positively about the team and the organization at every opportunity
Help each other be right, not wrong
Look for solutions to problems that come up rather than finding fault
All members should feel good about this experience
Training gives us skills and confidence

Presentations

Diversity and Inclusion App

Requirements:

Develop a real time interactive solution focusing on employee engagement and Diversity and Inclusion

Skillset Recommended
EQ (Emotional Intelligence) Software Development Social Media

Not platform restricted

This is a huuuuuuge open no expectations type project. It's a very ambiguous project to increase diversity... Somehow.

Street Smart

Help a transportation and health nonprfit migrate a custom built website to an editable CMS for greater diffusion and ease of maintenance

User information/profile, Community profiles
Welcome.thinkstreetsmart.org
Kelly Rodgers, Executive Director
kelly@thinkstreetsmart.org

Development of an app to report hate incidents in Portland

VA Tinnitus Care Plan

Candice.Manning@va.gov
503-220-8262 x52448
https://www.ncrar.research.va.gov

There is a basic algorithmic thing in place. With this, we will be testing and using different things
Project is already up on github to be worked on
This is a lot of background database work. This would be to set up the database and connect with it.
Databases with input from the already existing forms
Tracking usability, feasability

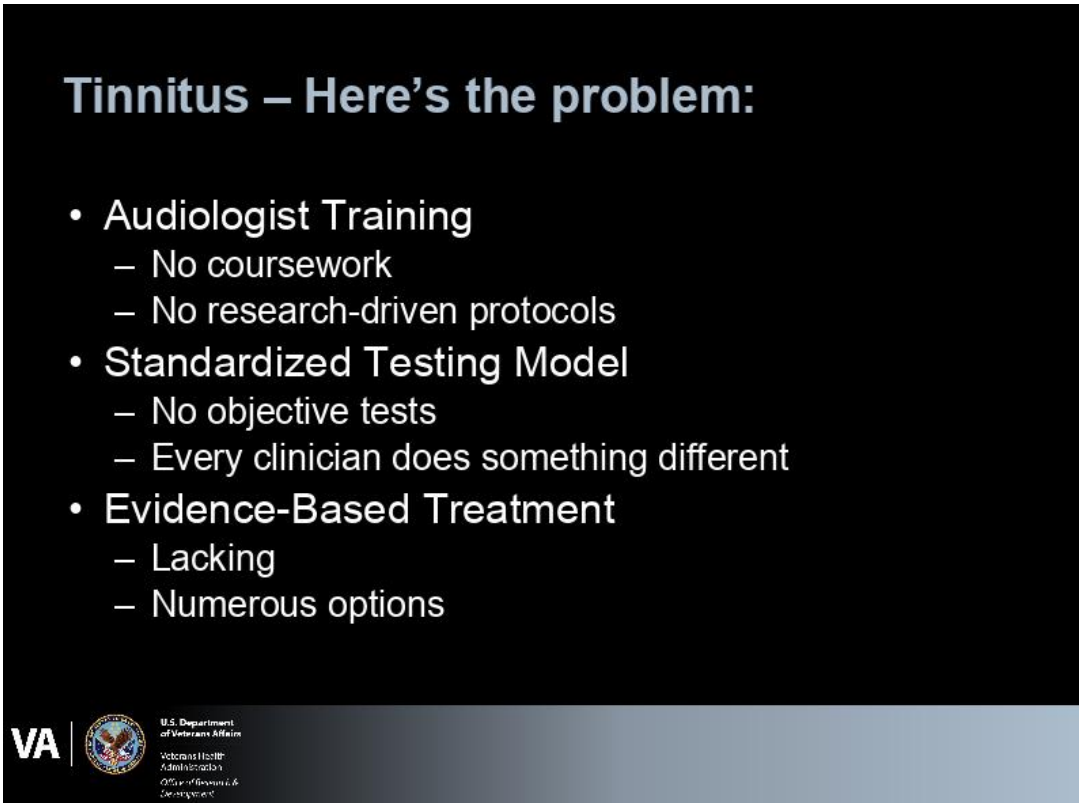

Figure 1: VA

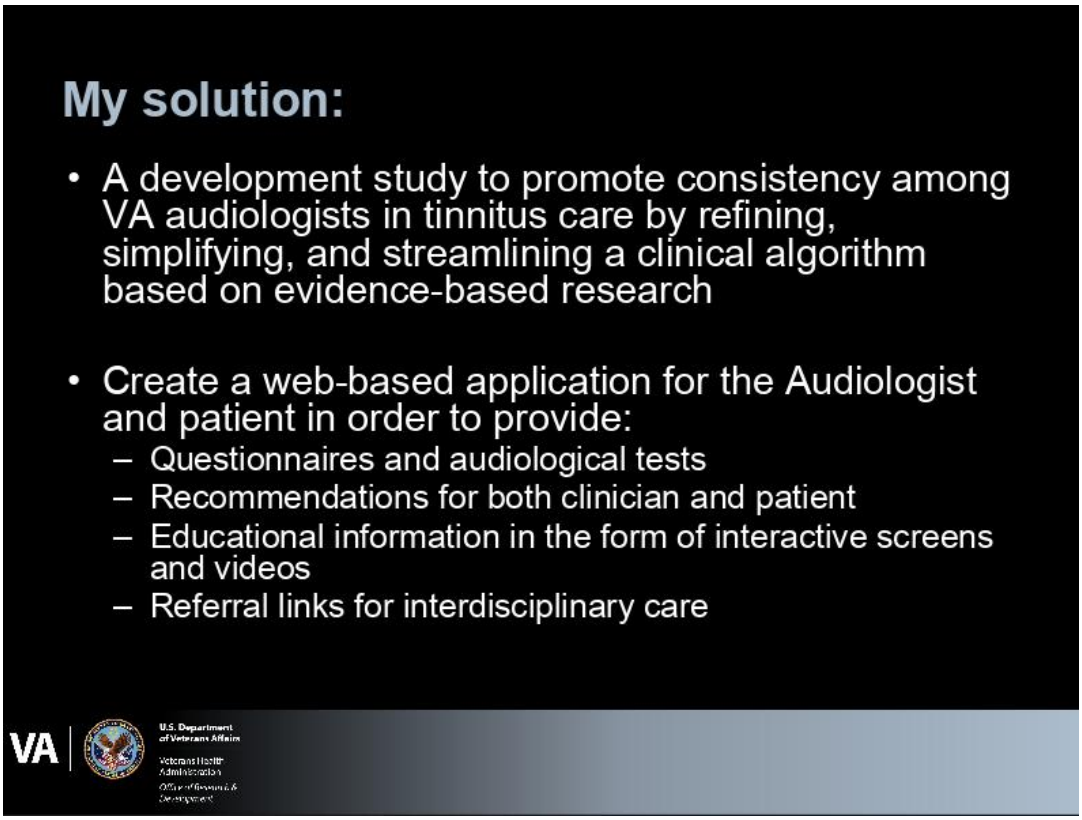
My solution:
• A development study to promote consistency among VA audiologists in tinnitus care by refining, simplifying, and streamlining a clinical algorithm based on evidence-based research
• Create a web-based application for the Audiologist and patient in order to provide:
– Questionnaires and audiological tests
– Recommendations for both clinician and patient
– Educational information in the form of interactive screens and videos
– Referral links for interdisciplinary care
VA
U.S. Department of Veterans Affairs
Veterans Health Administration

Figure 2: VA


Previous PSU Capstone:
NCRAR
Patient Check In
Audiologist Log In
VA U.S.Department of Veterans Affairs
Tinnitus & Hearing Survey
A. Tinnitus
Q1: Over the last week, tinnitus kept me from sleeping.
No, not a problem
Yes, a small problem
Yes, a moderate problem
Yes, a big problem
Yes, a very big problem
Next
SUMMARY
Audiogram
Otoscopy
TYMPS
Summary
A. Tinnitus
Grand Total: 16
B. Hearing
Grand Total: 16
VA
U.S. Department of Veterans Affairs
Veterans Health Administration
Office of Research & Development

Figure 3: VA

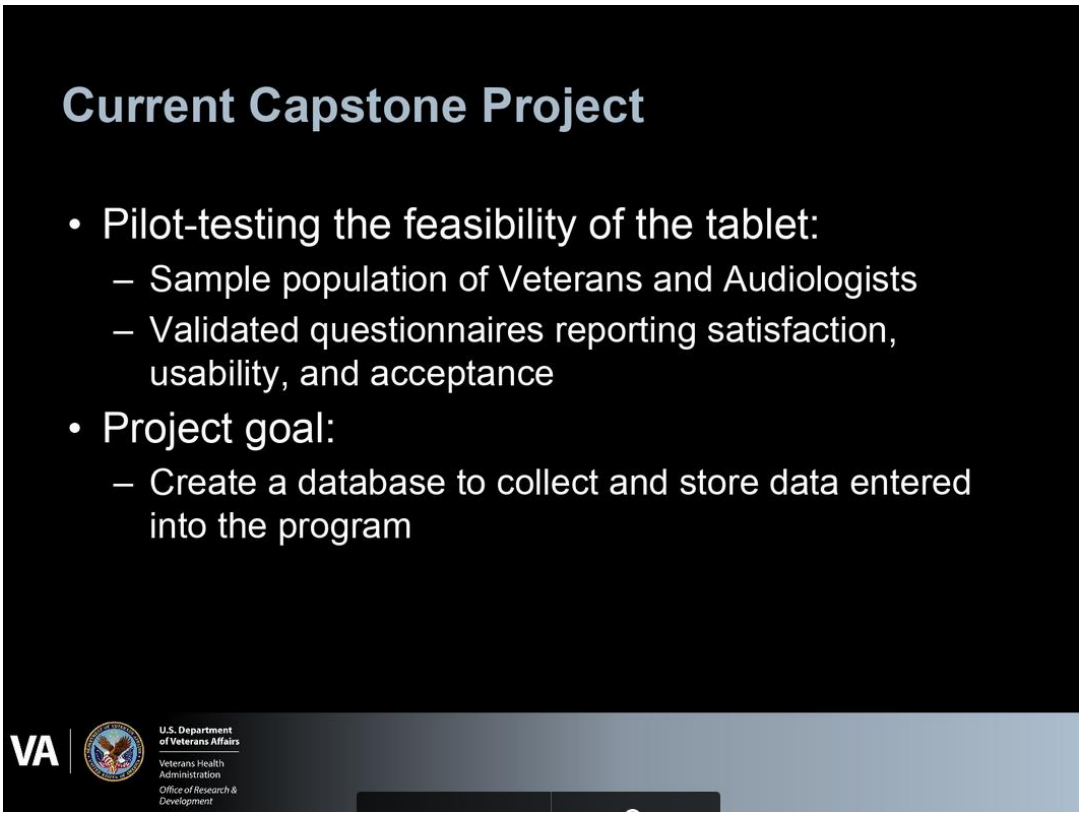
Current Capstone Project
• Pilot-testing the feasibility of the tablet:
– Sample population of Veterans and Audiologists
– Validated questionnaires reporting satisfaction, usability, and acceptance
• Project goal:
– Create a database to collect and store data entered into the program
VA
U.S. Department of Veterans Affairs
Veterans Health Administration
Office of Research & Development

Figure 4: VA

Development of a dashboard for selected Urban Key Performance Indicators

Web based dashboard

It's proof of concept not actual product and data

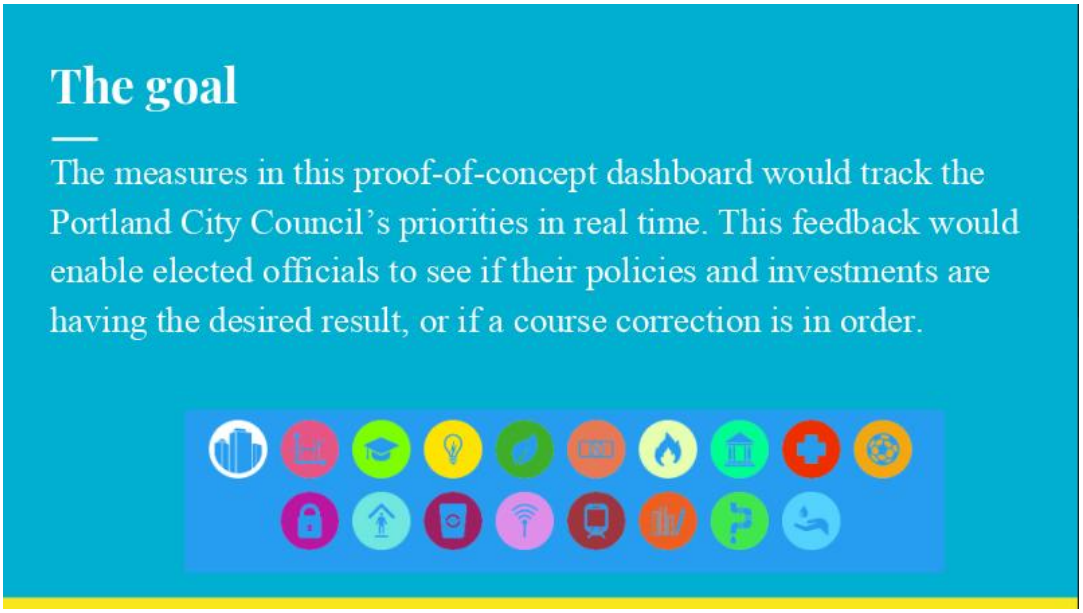

Figure 5: City of Portland

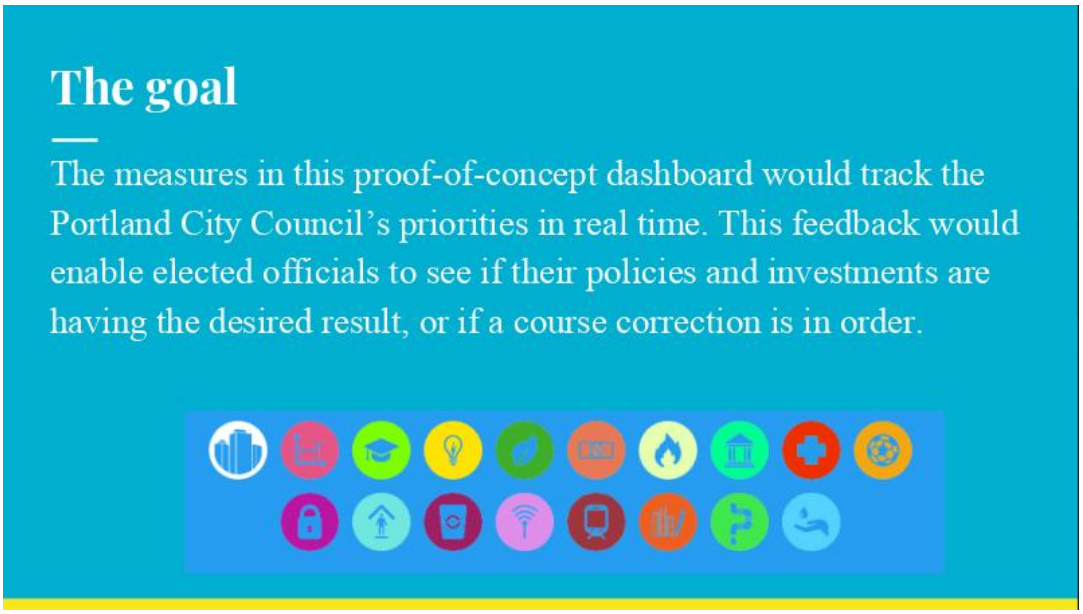

Figure 6: City of Portland

Capstone 360 Review System

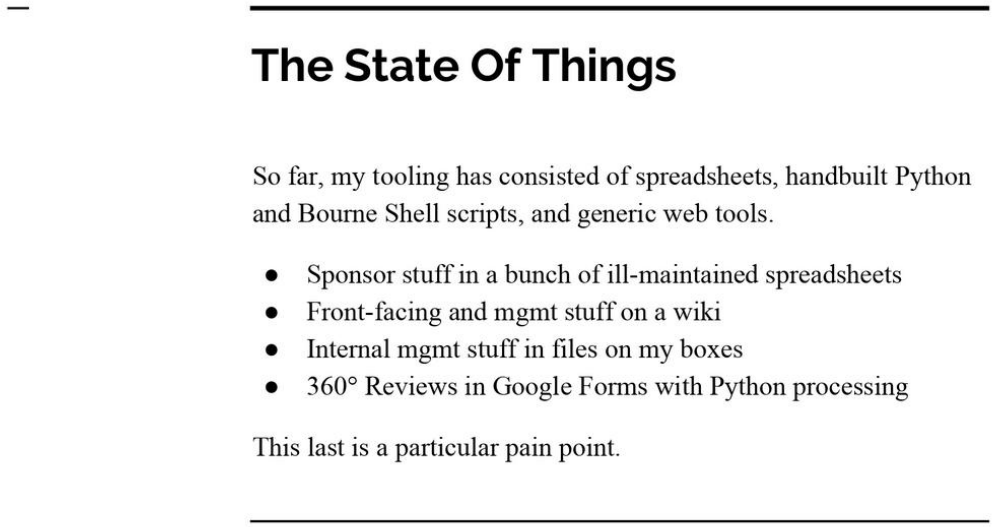

Figure 7: PSU

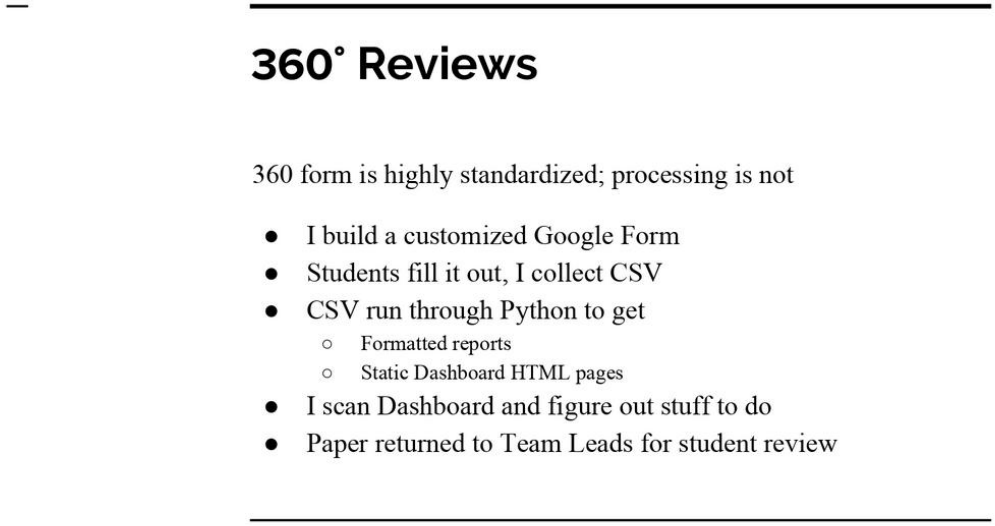

Figure 8: PSU

I Can Haz Webapp?

- MVP: 360° Reviews
  - Needs list of students and teams
  - Student submission of 360s
  - Analysis of 360s on instructor Dashboard
  - Format 360s for paper return to students
- Stretch Goal: Manage Team Leads
  - Student self-nomination
  - Student selection interview
- Stretch Goal: Manage Teams
  - Selection, Rosters, Contact Information

Figure 9: PSU

Webapp Constraints

- Stock Linux hosting. No containers. Server-side driven by Apache2 and/or nginx. Postgres database
- Language matters: something modern but maintainable
  - Minimal client-side Javascript
  - Python strongly preferred for server-side: not Django / Joomla, maybe Flask. Definitely not PHP. Other server-side languages we could talk about: Go, maybe Java

This app will likely be used for 10+ years, maintained by someone like me

Figure 10: PSU

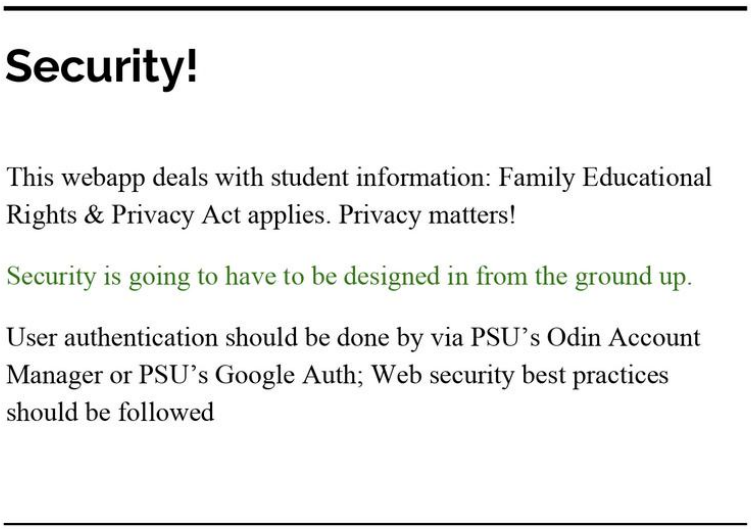

Figure 11: PSU

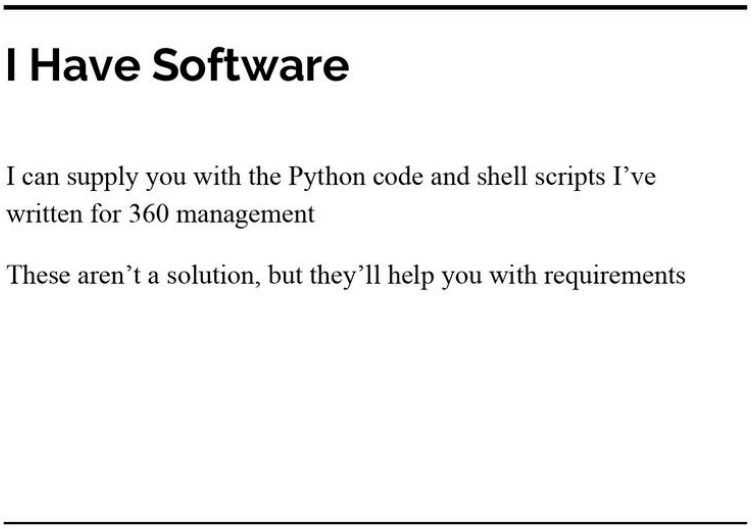

Figure 12: PSU