**Project Notes**

*CS 205*

1. **Business Requirements**

| **Must Have** | **Nice to Have** |
| --- | --- |
| * an online platform that synthesizes results from cell phone surveys into actionable results on some sort of dashboard * usable by citizens in a Yelp-like way to improve their healthcare searches   + this includes some way of producing a deliverable that can be distributed to those in more rural areas in some way * multilingual: Swahili & English * users who have submitted data must remain anonymous to the government | * ability to add new/additional forms of feedback (gov’t audits, news reports, whistleblower complaints, etc). |

1. **Ideas**

A list of (non-final) ideas we have so we can revisit them during the design phase.

* machine learning
  + encoding Swahili words as vectors — similar words have similar meanings, and we can trace positive and negative words with some type of sentiment analysis
  + k-means clustering — group the medical centers and/or survey responses based on unknown relationships between them (power some sort of “centers like this one” feature)
  + anomaly detection — detect survey responses and/or medical centers who stand out and provide list or sub-list of these to corresponding users (all anomaly medical centers listed for each ward government, etc)
* Scoring healthcare providers
  + provide a score out of 5
  + calculated using
    - sentiment analysis
    - average user ratings
    - k-means clustering — could boost / deduct based on how this center performs compared to other similar centers (also can just display this too, like “performs similarly to similar facilities”)
* filtering/searching
  + obviously a key portion of the website for users, but there are two larger methodologies by which we could carry this out (which are not mutually exclusive):
    - search bar-like — provide an address bar where the user can type in city/town/village and health centers can be found that way
    - map — clickable map
    - filter down — click district, then ward, then city, etc