Cody Code Review

Skyler's notes:

- Few dates on PowerPoint, so its hard to get chrono context. What's done? What's a work in progress?
  - JAN 8TH powerpoint is most recent info
  - Cody building JS product for WA HEALTH; previously R and Python product
  - This product needs better documentation
  - Paul believes Cody was really close to having a working prototype for helping decision making; thinks its a good time to discuss this
    - Can Jorge and I figure this out? Paul thinks we need 4 days
- You might consider an ArcGIS dashboard for this project. It allows you to host it on our ArcGIS Enterprise, would be simpler to maintain (not require app/web dev programming skills), and you could still utilize the same data, make tables, etc.
  - Data will likely need to be stored in an Azure Storage account or Agency GeoHUB storage
  - Scripts should get moved to GitHub and either used locally to refresh data or scheduled to run in Azure Dev Ops Pipelines.
  - https://hazards.fema.gov/nri/map#

CHARS_PrevData

Facility_Loc_Project

- What is this for?
- How is it relevant to HELP?
  - **Not HELP specific**
  - Type of thing they'd like to be able to do in the future
- This appears to be some kind of prototype. Perhaps for identifying facilities within a geographic context of HELP data?

HELP for Exercise Team 12-20

- simple example that launches in web browser
- ☐ Which version of the code did this come from? Consider adding a version number to future exports and deployments
- older model

HELP Simulator

- Has R and Python code, but not clear what's completed and unfinished at a glance
- Documentation is empty
- Python app

HELP_Recent

- Another example that launches in the browser
- not clear if this one is more up to date than HELP for Exercise Team 12-20
- probably most up to date

HELP_Show_Paul

- ☐ Cody rebuilt modules in JS?
- ☐ Not sure what he was using to produce these items, but I do not have the knowledge or skills to continue working on these
- ☐ Cody may have made this move to JS to make it more sustainable for future maintainers; person to talk to about maintainership is Andrew Lau
    - Some drama?
    - WA HEALTH Did not hire to replace Cody's skillset, hired for fit on the team
    - Working on a project for someone else
    - Share Drive files are gone?
    - This project require WA HEALTH team's help
        - Maybe broadening team in December

HELP_Sim_Sources

- ☐ This folder has two CSV files and two JS files. Is this relevant to the HELP Simulator?

HELP_v1_0

- Example that launches in browser for V1
- help v2 needs staffing data prior to v2 completion; Cody built simulator in advance

HELP_v2_Simulator

- Does not contain a demo
- R and python code
- Python app

MapImages

- Contains a map viewer of images from RHINO trajectories?
- **separate project from HELP**; Nate wanted vis of RHINO data over time

PowerPoints

HELP_RScripts

- Are these the original scripts that feed tableau dashboard?

Currently based on CHARS data only
Simulation tool is for estimating impacts of certain activities (WIP)

Most Recent Presentation

- Integration of additional data sources for more client usability and insights such as:
  - ▶ LNI FTE Data
  - ▶ Hospital Staffing Plan Data
  - ▶ 30 year claims data
  - ▶ WATRAC Data

- ▶ HELP Project started and Proof Of Concept solidified with examination of Seattle Children's Hospital
- ▶ Limited HELP Prototype created using Tableau
- ▶ Work began on custom made software for HELP

- ▶ R + Tableau
  - ▶ Easy to maintain BUT
    - ▶ Limited Features
    - ▶ Expensive maintenance/License
    - ▶ Not User Friendly
    - ▶ Updating/Improvement is time intensive
    - ▶ Data integration requires full rewrite

- ▶ "Full Stack" WebApp
  - ▶ Requires more specialized knowledge
    - ▶ Custom Features created
    - ▶ Free maintenance (outside labor hours)
    - ▶ Simplified User interface
    - ▶ Updating takes minutes, Improvements are limited by dev time only.
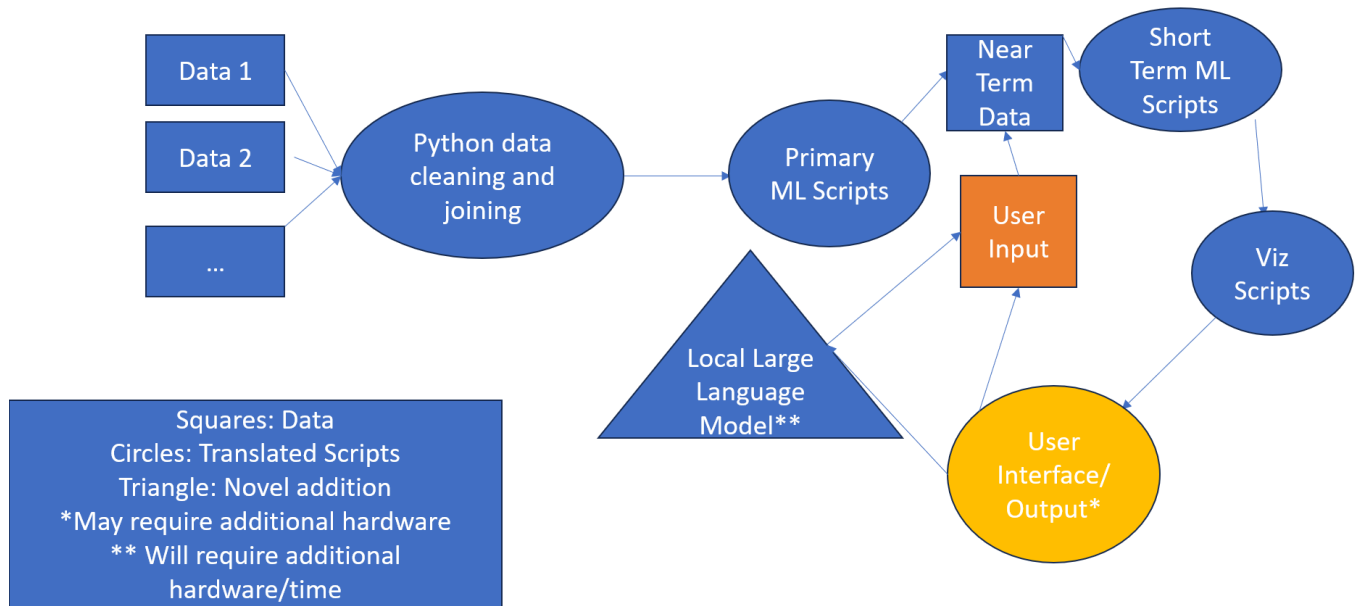   - ▶ New data modularity

^ more recent information

📄 January_8_2024_Presentation.pptx

Conversational interaction?!

- AI piece
  - interpreting data requires an SME
  - what happens if/when Paul is gone?
  Data integration pending data sources?
- play with other data sets at state level
- creating a CHARS baseline that can be used to compare to WA HEALTH, RHINO, etc.
  - ESSENCE groupings designed to interact with HELP
- ILERS
- Look at historic data in chars vs current intake coming from RHINO, staffing plans, ILERS for FTE employed to satisfy
- Paul has RCW on this; review and add to RCW list for data sharing
  Multi-modal prediction and forecasting
  Python application? Python conversion?
- this may be complete?
- Cody is developing with something else besides python now
  "Easily integrate additional data from a wide variety of sources"?
- calculations across cells with input information
  What happened after next steps after Slides for Viz PPT?

Design: Python Application

Squares: Data
Circles: Translated Scripts
Triangle: Novel addition
*May require additional hardware
** Will require additional hardware/time

Data 1
Data 2
...
Python data cleaning and joining
Primary ML Scripts
Near Term Data
Short Term ML Scripts
User Input
Viz Scripts
Local Large Language Model**
User Interface/ Output*

📄 Slides for Viz.pptx

^ Earlier presentation, not where HELP is at this point

Additional context from Paul

📄 The Role of the HELP tool in survaillence and incident response.docx