PCH Organized Notes and Requirements

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General Requirements:

Main Features

* Data from forms with insertable text, radio buttons, checkboxes, and conditional logic.
* Very user-friendly design
* There can be more than one behavioral classification in one incident.
* Allow Donnamarie to adjust what behavior classification and other details to correctly classify the incident in Sheets.
* Report pulling works best in Chrome, Pete says it would be best to build our project in Chrome.
* Must be able to export reports as pdf, csv, .docx.
* Create a system that is very **modular**:
  + A system that can*add, remove, or rearrange* features of the incident forms and reporting tools.
  + Polymorphic, generic functions that will take in Strings, Integers, Floats, etc. Then pass a specific field as an argument to generate reports.
* Must work on a Windows 10 System

Visualization

* Kaleidacare is only officially supported on IE, best for the format of visualizations.
* Make data visualizations generic, not specific to a certain characteristics.
* Choose what fields to graph including types of incidents, by child, and by time period.

Database

* Postgresql is free and supported through the community with free updates
* Logical representation of the Database will make it possible to be implemented on different DBMSs
* Store login credentials with encrypted passwords, which will enforce group and user permissions
* Data will be stripped of personal information, Primary Key for a child will be a number, probably serializable, complies with HIPA
* Quickly be able to show data in browser and export to Excel sheets easier
* Optimized query speed using a DBMS instead of Excel documents
* Stored procedures can be built/added later to give additional functionality and enhanced automation
* Data will be privately stored on the premises, don’t have to go out onto the Internet
* Allows for expandability in attributes if the form was to change in the future

Screen Scrape

* Software or API will be used to scrape the report from Kaleidacare to determine what kind of incident it is and other relevant data Donnamarie is looking for
* Allow Donnamarie or an admin user to alter or add information that the screen scrape found before it is entered in the database to ensure data integrity
* Expedites the data intake process, less manual work is required

Security

* Personal data from incident reports will be stripped of personal information to conform with HIPAA.
* Users will have to login with provided credentials to access the system.
  + Only installed on Donnamarie’s computer as of now.
  + Four users on the system, each with different permissions:
    - Root: complete access, R/W on all aspects.
    - Admin: R/W to add or remove fields in incident reporting and fields.
    - Donnamarie: R/W to add/edit incident reports and generate data visualizations.
    - Dr.C: Able to read data visualizations.

Formal Requirement Statement:

The project requirements can be broken down into the following three categories: the main features, data visualization reports, and security. The system will be designed to be as user-friendly as possible, to help users input new incident report data as quickly as possible and to generate reports that show overall behavioral trends of one or many children in the home. The system will be able to handle multiple types of data, including one or more bevorial classifications. A major characteristic of the system is modularity, it will be constructed in order to allow for the addition, removal and editing of incident reports. Additionally, these forms will support various input types such as booleans, integers, and text. It will also allow for easy exporting to common file types such as PDFs, Excel spreadsheets, and Word documents. This system will officially support running on Google Chrome in a Windows 10 environment.

The system will be secured by login credentials and given to the select users of the system and group permissions that reflect the internal operations of the home. A Root user will have complete access to the system to add and remove anything, this user will only be used by our team as we construct it. An Admin user will have full control over editing the incident reports and visualizations. Donnamarie will be another user that will be able to add incident reports and create data visualization reports. Dr. C will be another user who will only be able to view data visualization reports. All users will have to login to their local machine their biometrics to access the system to login.