RVU Piecemaker 2.0

The project is to build a website that accesses, maintains and displays databases. The purpose of the website is for users to easily log in real-time, and report (filter, sort, total counts etc) medical imaging procedures performed.

I don't care what language it's written in as long as it functions properly. I don't care what database it uses (if the host provider allows that database; presumably MS-SQL or MySQL).

The project includes completing the website AND getting it installed and working on the commercial host. I currently use Arvixe, but I can use a different host if there is a reason to change.

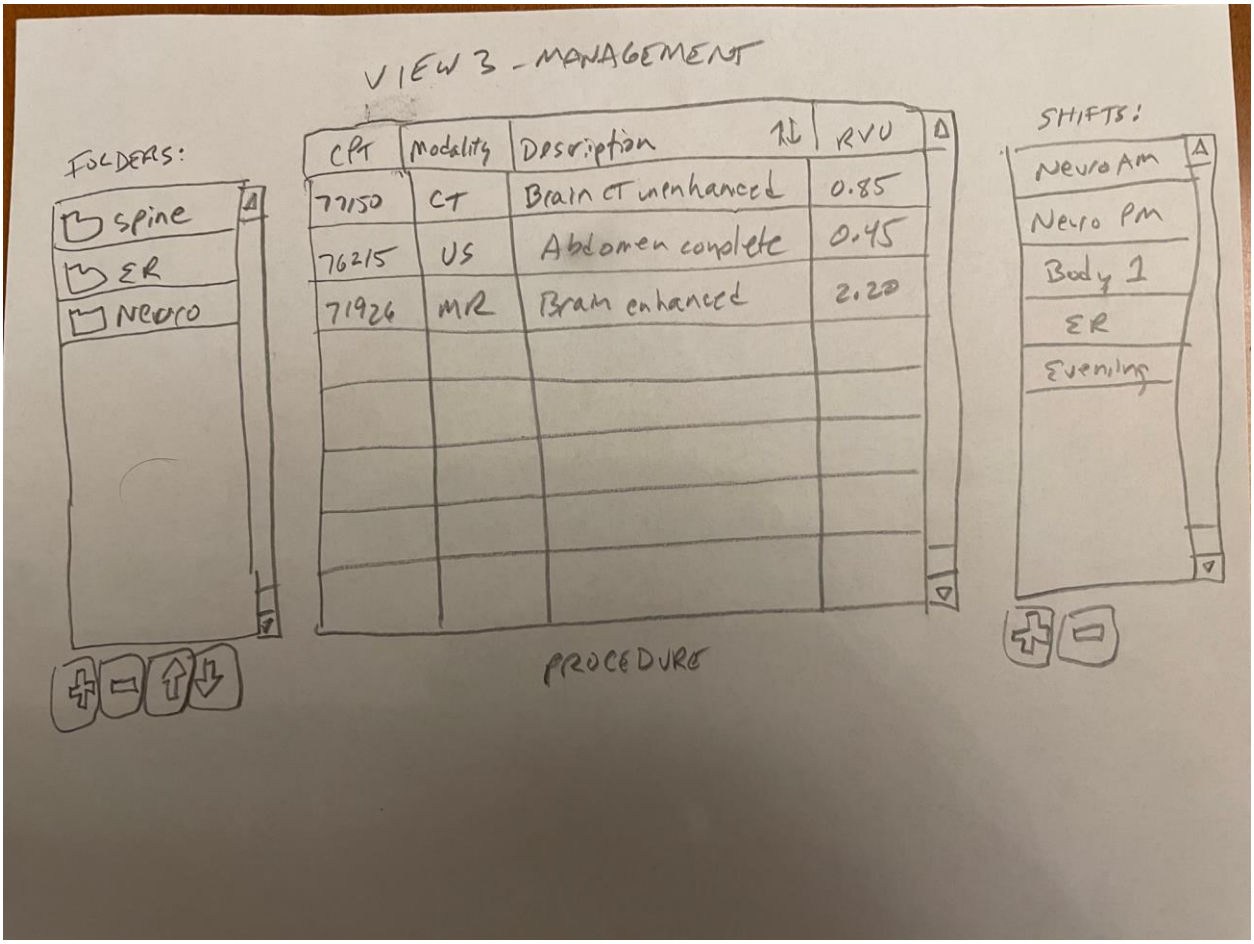
The website will have basic user/password login functionality.

The website will have three views (MAIN, REPORTS and MANAGEMENT). They can be 3 separate pages or 3 tabs on one page – whatever works. It should be easy and obvious how to navigate between views/pages.

At a minimum it should work in Chrome, Edge and Safari browsers. I would like each website view to be fully displayed in the browser window without browser scrolling.

I have included some screen drawings to provide a general overview of what is expected. I am open to suggestions from a professional who may have ideas that improve upon the concepts I have presented.

VIEW #3 – MANAGEMENT



There are three elements in this view. First is a PROCEDURES table to display database items and allow CRUD functions. Each record in the database will have fields: CPT, MODALITY, DESCRIPTION and RVU. Presumably each record will have an INDEX field that will not be displayed. The table will consist of only about 100 records, and once created will infrequently be modified.

-CPT is a five-digit code (ex. 77150)

-MODALITY is a two-letter code (ex. CT)

-DESCRIPTION is a text string (ex. Brain MRI unenhanced)

-RVU is a 3-digit decimal number (exs. 0.18 or 2.25)

Creating, editing, or deleting a record would ideally be done “in-line” in the table rather than separate text entry boxes for each field, but I’m open to suggestions about how to best accomplish this.

The CPT, DESCRIPTION and RVU fields are free text. The MODALITY field should be restricted to the following codes using a drop-down list (CR, CT, MG, MR, NM, OT, PT, US).

The table should be sortable on each field header. This table is common to all website users.

The second element of the MANAGEMENT view is a “Folder” list. The list should allow folders to be created, deleted and the list order rearranged. When a folder is deleted a “Do you want to delete?” warning should show.

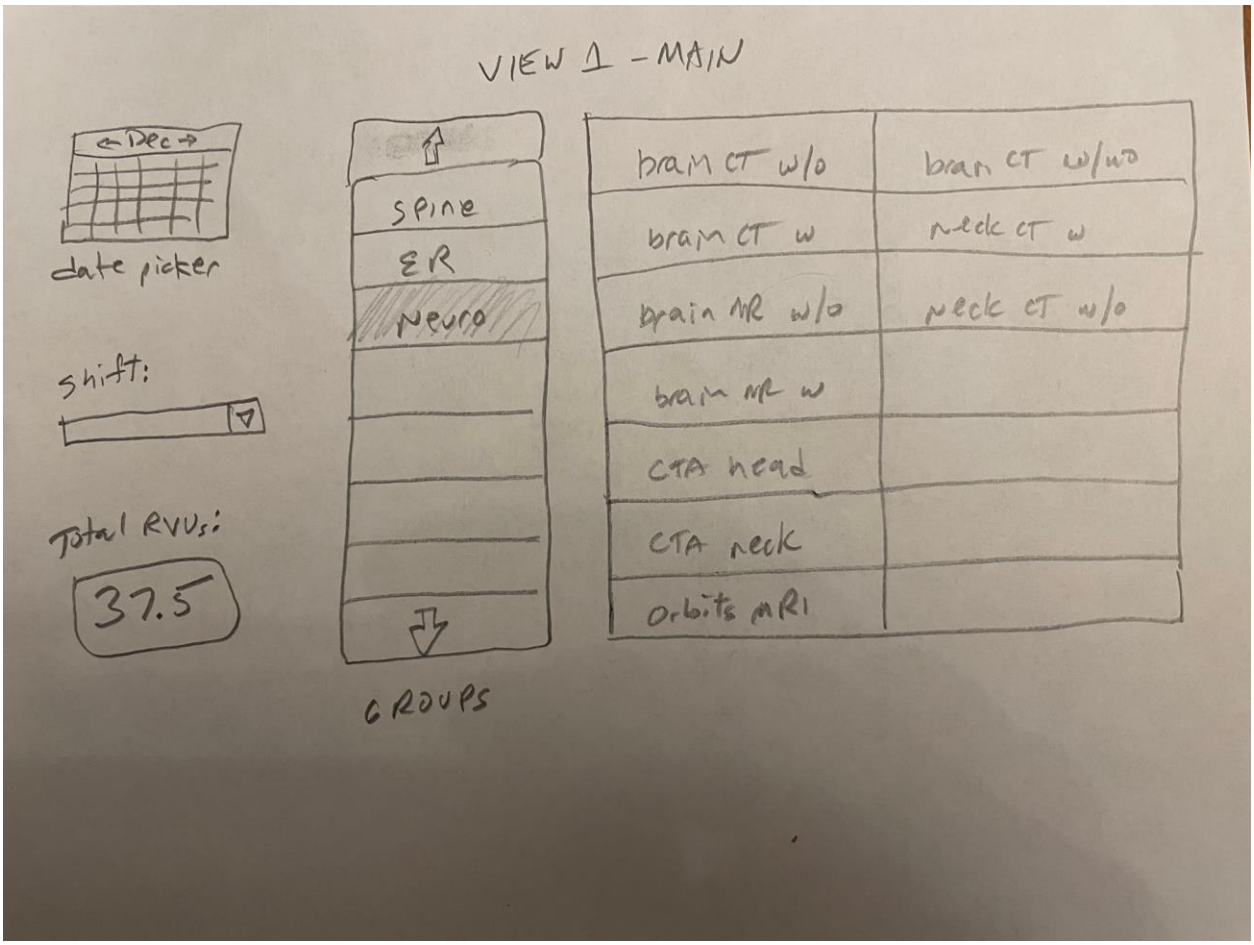
The user will select a folder in the list and drag-drop records from the PROCEDURES table into the selected folder. Ideally the user can ctrl-click multiple records and drag them all into the selected folder. Alternatively, if the user right-clicks on a record (or multiple selected records) a speed menu option “move record(s) to the selected folder” displays.

When procedure records are “moved” to a folder, only a reference to the record is placed in the folder. The record remains in the PROCEDURE table. A record can be “moved” into multiple folders. The number of record references that can be placed in each folder will be determined by the dimensions of the CASE ENTRY control described in the MAIN view – but I expect it will be approximately 20.

Folders, (and procedure records dragged into them) are specific to each website user, i.e. a user only sees folders they have created.

The third element in the MANAGEMENT view is a “Shift” creator. This is a text field that allow the user to enter free text for work-shift names (exs. Emergency Room AM or Neuroradiology PM etc.) It must allow the user to create and delete shift names names. These will be stored as a separate SHIFT table. The SHIFT table is specific to each website user and will presumably need a field to identify which user created it so it will only be displayed for that user.

VIEW #1 – MAIN



Website users will interact with the MAIN view throughout the day. It will provide the means for them to quickly log exams they have completed and will display some feedback regarding the amount of work completed. The elements included in the MAIN view are described below.

A date-picker which defaults to “Today”. The selected date will be included in any newly created records. This field is mandatory.

A shift-picker. A drop-down list will display shift names the user has created in the SHIFT table on the MANAGEMENT view described above. This will show shift names created by the current user. The shift name will be included in any newly created records. This field is not mandatory.

There will be a prominent label which displays the current “Total RVUs” for the Today.

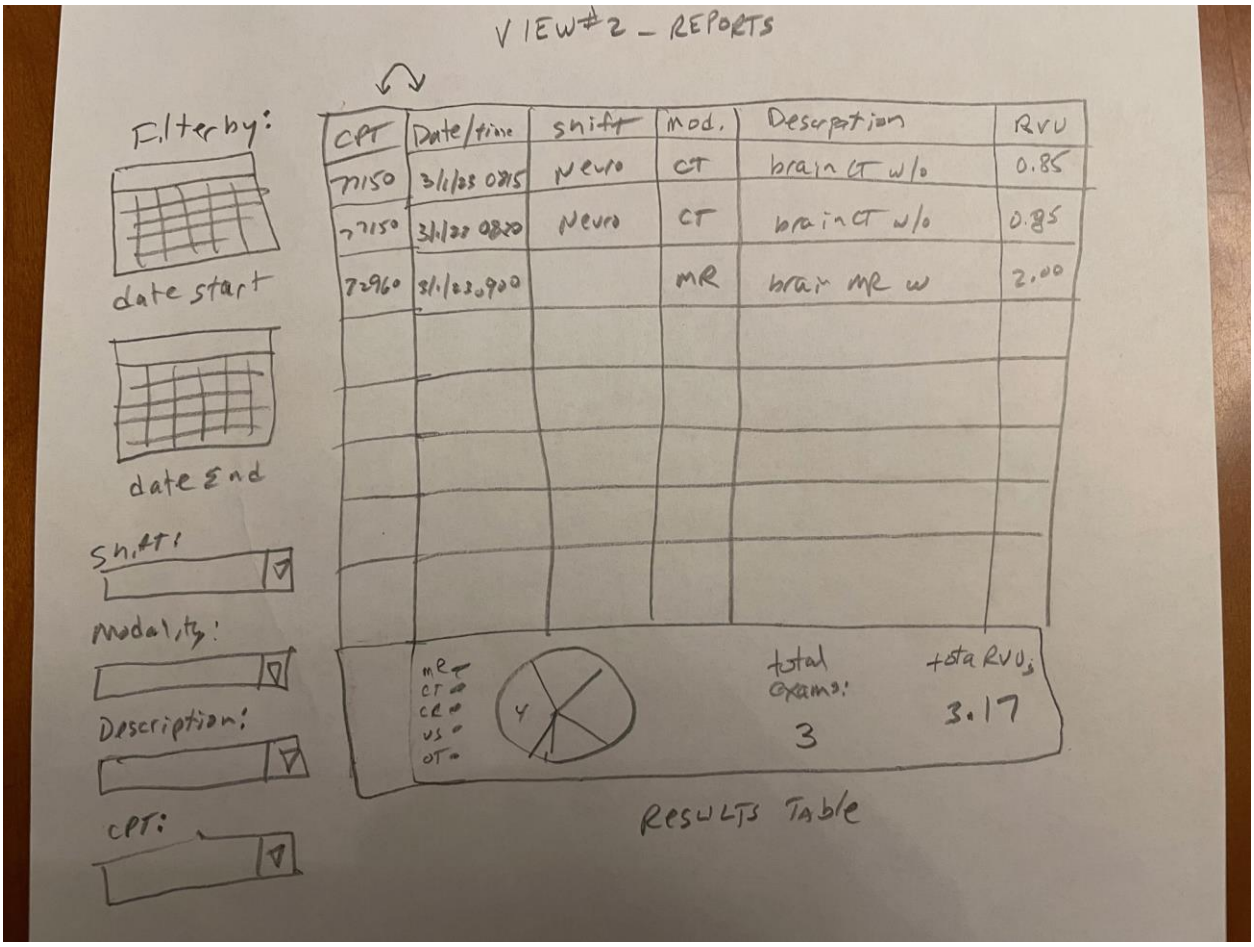
A “GROUP” tool will contain active buttons with their text set to the folder names the current user has created in the MANAGEMENT. The buttons should be large enough to be quickly and accurately selected, even on a touch screen. The number of buttons to be displayed will be determined by their size, but I expect approximately 10 can be displayed. This list can have large “scroll-up” and “scroll-down” buttons if the user has created more folders than can be displayed on one screen. The order of these buttons is determined by the folder list order created in the MANAGEMENT view.

The CASE ENTRY element on main screen is a table of buttons in two columns. Like with the GROUP list, the buttons must be large enough to be quickly and accurately selected even on a touch screen. When

the user selects a button in the GROUP list, the CASE ENTRY table displays buttons with their text set to the name of the DESCRIPTION field of the PROCEDURE records the user has placed in that folder.

As the website user works throughout the day, they will click buttons in the CASE ENTRY table to log their work. When a button is pressed, a record is created in a RESULTS data table. Each of these records will include fields for those in the PROCEDURE table (CPT, MODALITY, DESCRIPTION and RVU) and will add fields for DATE/TIME and SHIFT fields. These records must also have a field to indicate which website user created the record (not displayed), since individual users will only see records they have created. See my description of website VIEW #2 for more information about displaying the RESULTS table. The RESULTS table will continue to grow and over years could reach hundreds of thousands of records.

VIEW #2 – REPORTS



The main element in this view is a table view for the RESULTS database table. The data fields for each record are: DATE/TIME, SHIFT, CPT, MODALITY, DESCRIPTION and RVU. The table is sortable by each column header.

There is a table footer that displays two values: “Total exams:” which is the number of records, and “Total RVUs:” which is the sum of the RVU column. There is a pie chart in the footer. The pie slices indicate the relative percentage of the different MODALITY In the list, while each slice text shows the count of its modality. There will have to be a small legend next to the pie chart to indicate the color of each modality.

The remaining elements in the REPORTS view are tools to filter the records in the RESULTS table. These tools are:

Date-picker 1 – for start date; default to Today

Date-picker 2 – for end date; default to Today

Date pickers allow the user to filter RESULT table for a date range (excludes time). To filter for a single day the same date is selected in both pickers. Date-picker 2 cannot be earlier than Date-picker 1.

Shift drop-down list; shows records in that users SHIFT table, and allows the RESULT table to be filtered by the selected shift; default to empty

Modality drop-down list; this list is populated by all distinct MODALITY codes in the RESULT table. It allows the user to filter by Modality

Description drop-down list; the list is populated by distinct DESCRIPTION strings present in the RESULT table. It allows the user to filter by Description

CPT drop-down list; the list is populated by distinct CPT codes present in the RESULT table