GRE_map_classmap_py

1) Called by GUI, goes to main function which calls class GRESubject
2) Initializes attributes of the class and establishes some functions
   a) Loads in the files (ventilation and proton) and scales the DICOMs to 128x128
   b) Loads registration module for the mask, ANTs is useful for managing, interpreting and visualizing multidimensional data
   c) Loads segmentation module for the mask, automatic or manual commands
   d) Creates a bias field for ventilation image and combines ventilation + proton masks
   e) Binning Ventilation
   f) Generate statistics for our binned data, bin stats help calculate defect, low, mean, median, SD, and CV
   g) Creates a clinical report based on the data
      i) Makes a montage of pngs and histogram
      ii) Generates a PDF file of report
      iii) Generates a CSV file of report
      iv) Saves files to Output path

GX_map_utils.py

1) Is often called from GRE class map, contains many helper functions that class map needs to import
2) File contains many imports
3) Utility functions utilized by main class map functions
4) Helps us to operate main functions