This is a description of all Shiny apps created with the IQVIA MIDAS data (global antimicrobial use), documenting their overall structure and purpose. These apps have been designed to be scalable, to accommodate any changes to the internal values of the columns (e.g., additional data). While there may be different ways to display these data, there may be a fundamental structure that is amenable to any Shiny apps one would want to make using these data (e.g., as dictated to by the type of variables (continuous/categorical etc.), time varying/static, probabilistic/descriptive, etc.).

The IQVIA MIDAS data can be found [here](file:///O:\formatted_data\amu_data), and are well documented [here](https://sgul365.sharepoint.com/sites/ADILA/SitePages/MIDAS%20Antibiotic%20Usage%20Data.aspx).

**Completed**

1. None completed…

**Under development**

1. Spatial and temporal exploration
   1. Purpose
      1. This was the first app made using these data. At this early stage, the data had only just been cleaned and prepared for analysis so the purpose of this app was to facilitate broad visualisation of the data and identify any interesting trends that warrant further exploration.
   2. Structure
      1. Spatial (global choropleth)
         1. Inputs
            * Antimicrobial
            * Route of administration
            * AWaRe category
            * Year(s): you may select one year or a range of years, in which case an average will be calculated
      2. Temporal (line plots by year)
         1. Comparison of antimicrobials
            * Inputs: the other three variables (route/AWaRe/country)
         2. Comparison of administration routes
            * Inputs: the other three variables (antimicrobial/AWaRe/country)
         3. Comparison of AWaRe categories
            * Inputs: the other three variables (antimicrobial/route/country)
         4. Comparison of countries
            * Inputs: the other three variables (antimicrobial/route/AWaRe)
   3. Instructions
      1. By default, the app will open to the Spatial tab. You may then choose to navigate to the Temporal tab (which contains a number of drop-down options depending on which groups you would like to compare).
      2. By default, the input values are empty. Always start from the first input box and then work sequentially downwards. You also have the option to choose which AMU metric in which to view the data.
      3. In order to load the visualisation of the selected inputs, click the Load button.
      4. If you wish to change the input values, begin at the first input as before.

**Proposed**

1. No others proposed…