CSDE 502 Winter 2020 **Assignment 8** **Introduction to Add Health** **Instructor: Phil Hurvitz** **phurvitz@uw.edu**	**My Name: June Yang** **My UWNetID: jyang32**

Due Date: 2020-03-12 09:00

Instructions:

1. Fill out your name and UWNetID at the top of this page.
2. Add your answers to this document.
3. Use the "00Answers" style (Calibri font) for your answers so they will be clearly discernible from the questions.
5. When you are completed with your work, create a PDF from the Word document.
6. Name your PDF document with the pattern UWNetID_HW_n.pdf where UWNetID is your UWNetID and n is the week number when the homework was assigned. For example, the first assignment by me would be named *phurvitz_HW_1.pdf*. Upload your completed document to Canvas.
7. Upload any specified data or code files to Canvas.

Explanation:
This exercise will give you the opportunity to define and execute a brief research project. The intention is for you to use some of the data processing skills you have learned in this course to a novel data set. The second objective is for you to create a report in R Markdown to create html and PDF documents that include both your code and output. The third objective is for you to become minimally introduced to GitHub—at least to the point where you have created an account and uploaded your work.

1. Go to www.mortality.org.

2. Create a user name and password.

3. Click a link for a country.

4. Download one or more of the data files (for example, the 1 age x 1 year deaths data link is shown in Figure 1. You will be prompted for your username and password when you access the first file. To download the file, R-click the link and then *save as*.

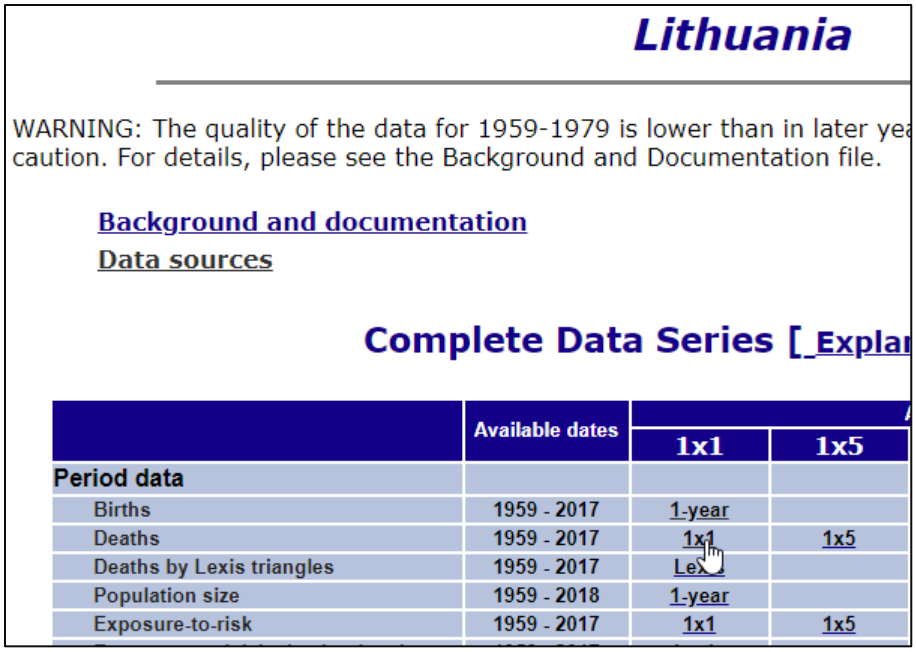

Figure 1: Web interface for mortality.org

Note: the raw tables contain metadata in the first row and the second row is blank. To read these into R as data frames, use

```
dat <- read.table(filename, skip = 2, header = TRUE)
```

5. Using R Markdown, write a brief paper (about two pages) about the country that you've chosen, or make a comparison of two or more countries. Include in this paper:
   a) A brief introductory paragraph describing the country (feel free to steal something from the web).
   b) Verbiage that describes the data and references the HMD data source.
   c) An analysis of the data to describe something interesting about the country.
   d) Include at least one of each of the following
      - text with imbedded R
      - hyperlink
      - table
      - plot
      - some R Markdown thing you've never used before

6. Knit your R Markdown file to both html and pdf.

7. Store your input and output files in a GitHub repository and include the URL below so I can download your work. Include the following:

https://github.com/jyang2590/csde502hw8/

- data file(s)
- .Rmd file

- .html file
- .pdf file

Note: If you have not used GitHub before, you can sign up for an account at https://github.com/. At its simplest, GitHub is a website where you can store things that others can access. At its most complex, it is a complete version control system that can track a project through all its changes when an unknown set of people are all offering their improvements to the same code base. There are many introductions to GitHub. Here is one on YouTube: https://www.youtube.com/watch?v=BCQHnlnPusY