# Setting up proxy ports for R to work

* 1. Exit R/RStudio if you have it opened
  2. Set up your “.Renviron” text file
     1. If you have installed R into its default path, this text file should be located in your “Documents” folder in Windows
     2. To do this, open a new text file via notepad and add:
        1. 
           1. http\_proxy=http://cdfwproxy.ad.dfg.ca.gov:8080
           2. https\_proxy=http://cdfwproxy.ad.dfg.ca.gov:8080
     3. Exit and save the file, making sure of the “.Renviron” file name
  3. Set up your windows environment
     1. Open up your command prompt via:
        1. Windows key + R to open the Run window
        2. Type in “cmd” and open the command prompt
     2. Run these two lines of code within your command prompt:
        1. setx http\_proxy <http://CDFWProxy.ad.dfg.ca.gov:8080>
        2. setx https\_proxy <http://CDFWProxy.ad.dfg.ca.gov:8080>
  4. If you are not on the CDFW network, e.g., working from home, you must use the VPN

# Installing LaTeX

* 1. The easiest way to do this is to simply install the ‘tinytex’ package
     1. After installation, run the command “tinytex::install\_tinytex()”
        1. This installs only the base LaTeX infrastructure
        2. When you knit to pdf, the program will likely have to install more LaTeX packages before working
           1. At this point, you must have set up your proxy settings above or it will likely not install your needed packages
  2. If you are working with the `mapview` package, as when you are when creating the metadata documents for the Native Fishes surveys, install PhantomJS as well:
     1. webshot::install\_phantomjs()

# Specific package requirements for getting the R infrastructure to work:

* 1. You need to install 32-bit R to run the code
     1. This is required if you have 32-bit Microsoft Office Access (which is likely if you work for CDFW, as it is provided as default)
     2. R and RStudio are phasing out 32-bit support. This means you cannot use the most up to date versions of these software, which may lead to annoying bugs you will have to contend with. The latest versions that you can use are:
        1. R = [4.1.3 “One Push-Up”](https://cran.r-project.org/bin/windows/base/old/4.1.3/)
        2. RStudio = <1.4.1743>
     3. You can also solve this by having your IT install the 64-bit version of Microsoft Office, which itself provides you with better support for larger files anyways. If you have the 64-bit Office, you do not need to bother with installing a 32-bit version of R and can use the newest versions of R and RStudio. I would recommend going this route if possible.
  2. The “webshot” package is required to create a snapshot of the leaflet map for the metadata document
     1. As of 2022-08-18, only version [0.5.2](https://cran.r-project.org/src/contrib/Archive/webshot/) (and likely below) will work. Do not upgrade to the newest version of webshot

# Setting up GitHub (https://cfss.uchicago.edu/setup/)

* 1. These steps rely heavily on the link above
  2. Create an account at [github.com](https://github.com/)
     1. I recommend just using your work email
  3. Install [Git for Windows](https://gitforwindows.org/)
     1. Keep all the default installation settings
     2. Double check that the installation location will be: “C:/Program Files/Git/bin/git.exe”
  4. Install [GitHub Desktop](https://desktop.github.com/)
     1. This offers an alternative to committing, pulling, and pushing from RStudio. It will also resolve proxy issues with your computer if you run into it (even after attempting to fix it via the guide above)
     2. Do not worry about this until later, let it simply install for now and move on to the next steps
  5. Identify yourself within R/your computer:
     1. Run in R install.packages(c(“usethis”, “gitcreds”, “gh”))
     2. Run in R usethis::use\_git\_config(user.name = “Benjamin Soltoff”, user.email = “ben@bensoltoff.com”)
        1. Your “user.name” can be anything you want
        2. Your “user.email” ***must*** *be the same* as your GitHub account
  6. Caching credentials for SSH to authenticate yourself and your GitHub account on the internet
     1. Run in R credentials::ssh\_setup\_github()
        1. You will be prompted to generate a new SSH Key. Type “Yes” to generate
        2. You will then be asked to open a browser to your GitHub
           1. Paste the public key into the browser
  7. Your GitHub Desktop application should be done installing by now
     1. Log into GitHub Desktop with your credentials
     2. From there, you can clone the repository housing the survey data to your computer:
        1. You will need to be added as a collaborator by Trinh Nguyen, [trinh.nguyen@wildlife.ca.gov](mailto:trinh.nguyen@wildlife.ca.gov)
        2. Clone via URL: <https://github.com/trinhxuann/CDFW-IEP-Surveys>
  8. You can now commit, pull, and push from your computer via RStudio (may give proxy error) or GitHub Desktop.