# Exercise 1
# Part a: GitHub
# Part b: quarto

# Note: all homework submissions occur via github

**Week 1 Exercise Part A:**

1. Recommend: get R 4.2.1, latest RStudio, git, quarto, etc.
2. If you haven't already, create an account at github.com/join; give GitHub username (+details about computing) to Mark via https://forms.gle/sc7ci6jPFweBE8xKA
3. Acquaint yourself with git / github (gitlab) [1]; make sure you can check in (`push`) / out (`pull/clone`) files from command line or app [2].
4. Create a new public github repository, add a README.md (using markdown [3]) and add some content; include an image; include a web link, etc.
5. Add an Issue to the 'material' repo [4] with a link to your repo (you can delete the repo after I've closed the issue, if you want)

[1] https://gist.github.com/andrewpmiller/9668225
[2] https://confluence.atlassian.com/stash/basic-git-commands-278071958.html
[3] http://markdowntutorial.com/
[4] https://github.com/sta426hs2022/material

# **Quarto** for executable documents / reproducibility

**Week 1 Exercise Part B:**

1. Test your R knowledge here: https://forms.gle/FFHiFx8UHrBVGv2R9 (only 9 questions)
2. Acquaint yourself with quarto for executable documents [1].
3. Create an HTML document with R code that samples 100 values from a negative binomial distribution (say, mu=10, dispersion=2; using the parameterisation with mean=mu and variance=mu+mu$^2$*dispersion); create a histogram of sampled data on both the linear and log [or maybe log(x+1) due to zeros] scale; Write 1-2 sentences to describe your steps (ideally also with section headings) and report the mean and variance of the sample *in line* in the text.
4. Add the QMD and HTML files to your repo from Week 1 Exercise Part A.

[1] https://quarto.org/