**NOTES**

background

no programing background

**think about it take your time and talk to your friend close by**

how much computing background

challenge

break

ask questions

organizing files

R studio

setwd

folder analysis working directory

R project IDE explain all bits and bobs

?

library

help

day 2

folder data create

data subfolder

look at data

View()

observations in rows and columns have features

surveys

for each animal some features are recorded

head

data.frame

vector of same data type

head()

anything out of ordinary

mostly rodents

**Inspecting data.frame Objects**

being a data scientists

average record is does not mean anything

break

**Indexing and subsetting data frames**

mean value oif a columb

factors

useful in plotting and statistics

plot basic

plot(surveys$sex)

quick plotting

histograms

save plots ujsing RStudio IDE

Assignments for Day 2

Script Rmarkdown

Drake equation assignment

See assignment\_drake\_equation.R

**Assignment Ideas**

1. **Analysis Task**: Ask students to analyze how each parameter influences NNN, with plots and summary statistics.
2. **Exploration Task**: Have students modify parameters like R∗R\_\*R∗​ or fpf\_pfp​ to explore different outcomes.
3. **Creative Challenge**: Students can tweak the code to simulate new scenarios or incorporate other cosmic phenomena.

I want to create a fun assignment for my students I'm teaching introduction to our and for most of my students it is their first introduction to our programming language. I want to create a fun assignment around generating different simulations and scenarios from the Drake equation. Please give me some R code to generate some dummy synthetic data for the fraction of planets which will have an advanced civilization in it. This is a parameter in the Drake equation.

Please give me complete functioning R code that will generate synthetic data.

Please also generate some R code that will create some simulations from the drag equation.