<https://raw.githubusercontent.com/QFCatMSU/FundProgUsingR/master/Class3.r>

* Next week 1-8
  + Thursday 9am, effort and questions need to be answered
  + Inform me early, get to it quicker
  + Next class: for loops/ pattern recognition??
* This class
  + Teams switch (FW 891 will use it)
  + Text and binary files
  + cat() and the ( … )
  + Escape character ( \ ), Unicode
  + If-else statement structure
  + Weighing random samples
* In group, feedback about Teams
  + Should work like you are in a desktop folder, except you do not have to zip the folder
* Text and binary files:
  + How you know: can a text editor read/edit it (RStudio, notepad++, textEdit)
  + Text files: programming languages (R, HTML, JS), CSV
  + Binary: most images, Word, Excel, executable
  + Opening files in a text editor
  + Opening a CSV in Excel (can accidentally convert to XLSX)
* Cat()
  + One way to write text to a file (so, text-formatted)
  + File can have any name and extension (even invalid ones)
  + Have to use argument names (sep, files) Why? (Group)
  + ( … ) R Objects – anything that is a variable or unsaved: “ “
* ( \ ) The escape/alternate character ( 3 purposes) for output (plot, text…)
  + Provide an instruction ( \n, \t) – not many of these
  + Output characters that are operators (“)
    - Few of these until you get to pattern recognition
  + Output a character not on the keyboard (Unicode)
    - Some will not work yet (emojis)
  + Activity:
    - Write to Console and file:
* If-else structuring (my pet peeve)
  + Standard programming:
    - If-else example: random number check
    - More complex: weighted values with sample()
  + Causing an error
    - Take away curly brackets
    - Run just the lines
  + R standard
    - Makes large code harder to read!
    - Bug that is easy to fix but not a priority
    - Prioritize shortcuts
  + Activity:
    - Randomly pick from 4 weather conditions with probabilities of 10%, 20%, 30%, and 40%
    - Randomly sample numbers from 45-55 with higher probabilities in the middle (like a normal curve)
    - Create an if-else structure using both variables

Opening files through Teams