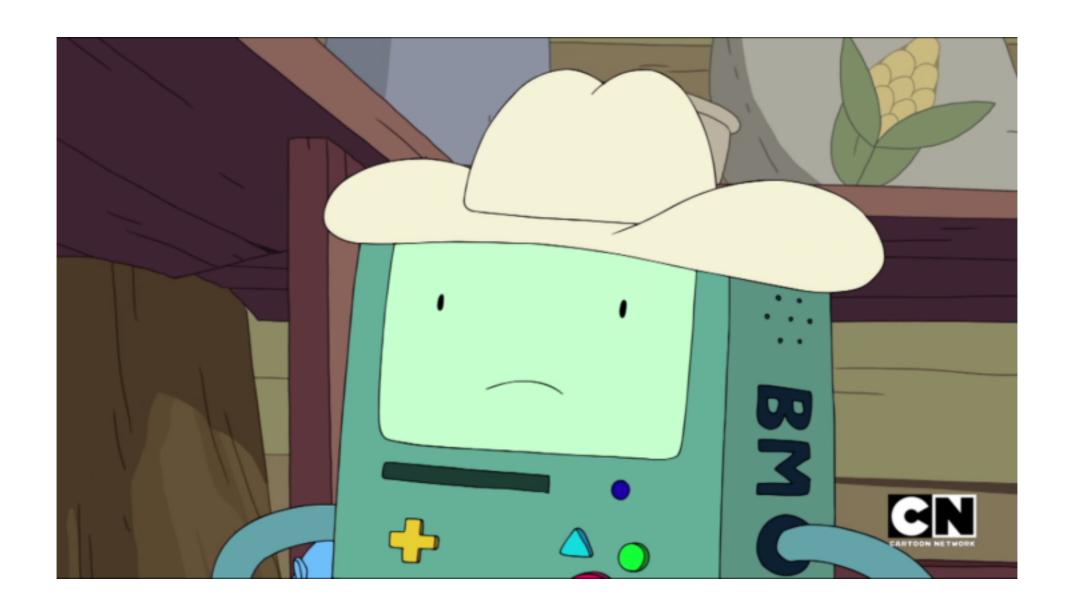
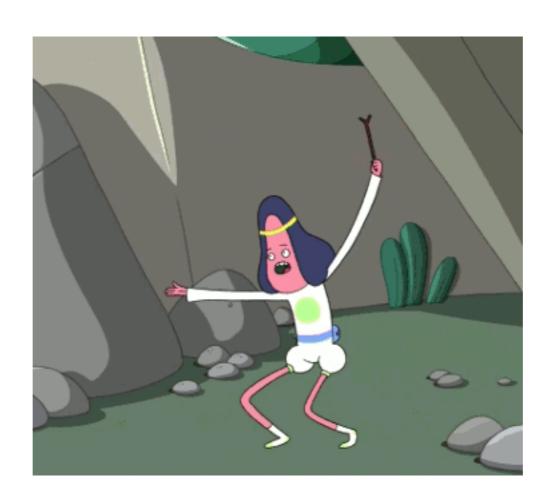
## data wrangling in R



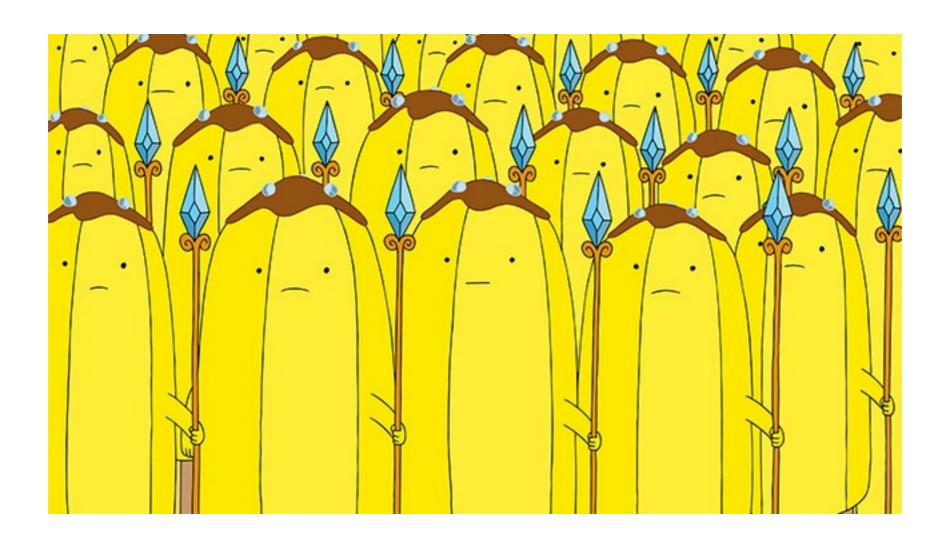
@cjlortie

#### more than half the battle



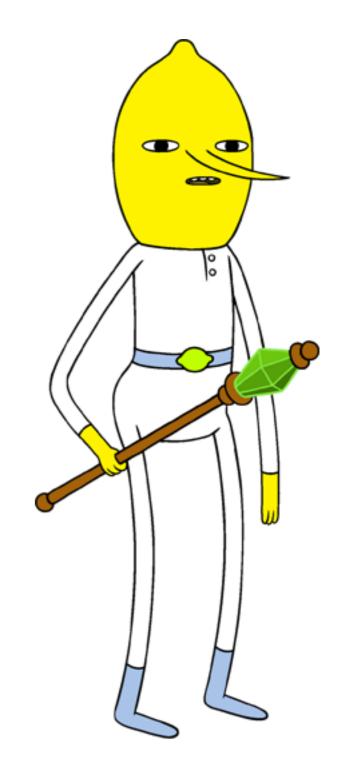
benefit of wrangling in R versus Excel

## reproducibility



transparent

know thy data



values, variables, and observations

### tidy your data with variables in columns



vectors of values are easier to work with in R



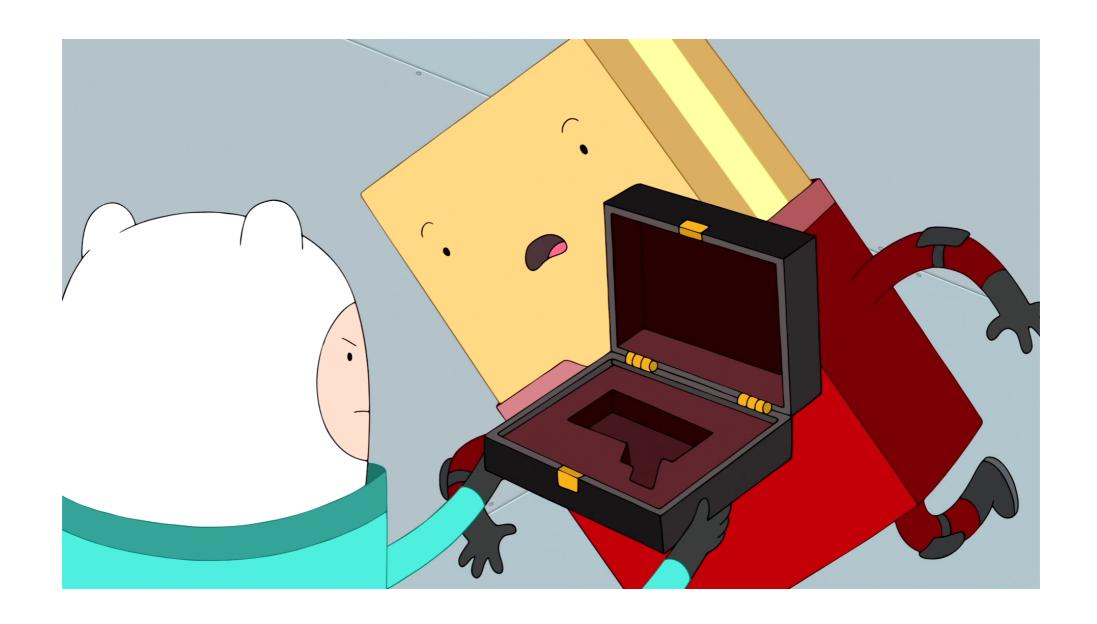
no special signs such as \$#\*/ within dataframe

one variable per column and one class

## one observational unit per table



# missing values





is.na()
na.omit
na.rm=TRUE

simplify & selections from dataframes

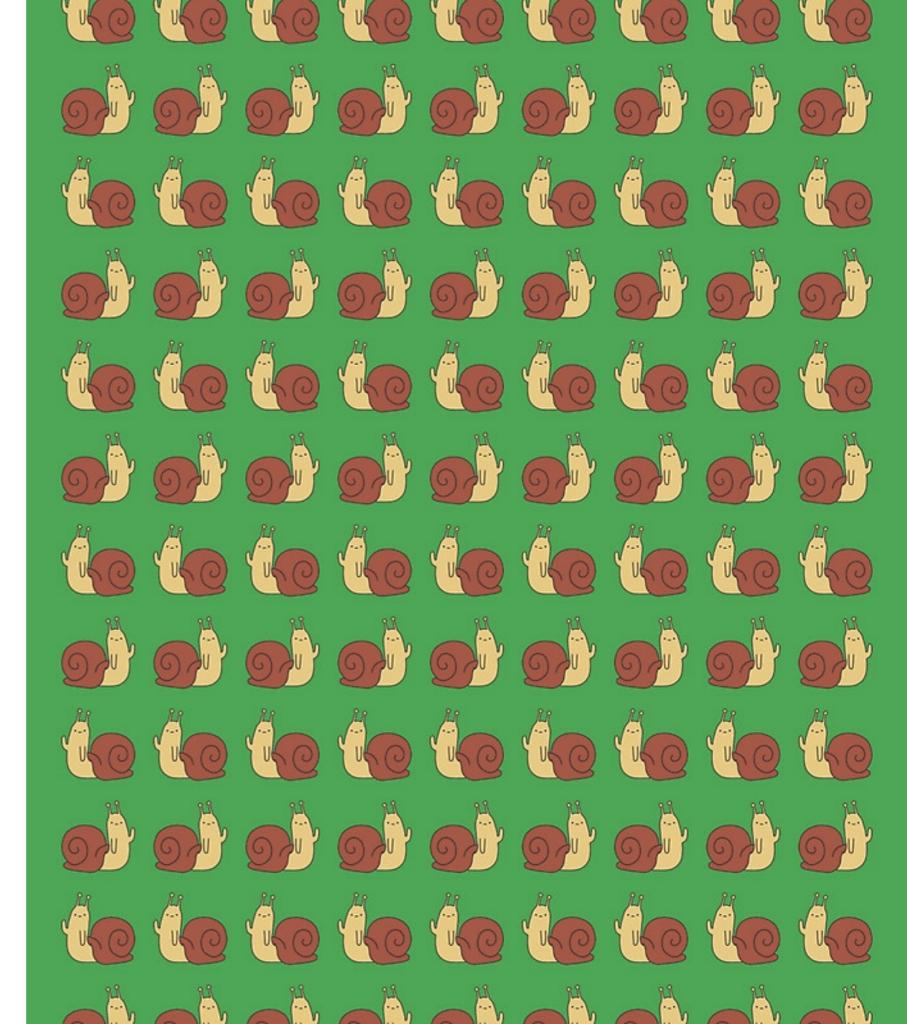
drplyr



#### select for columns

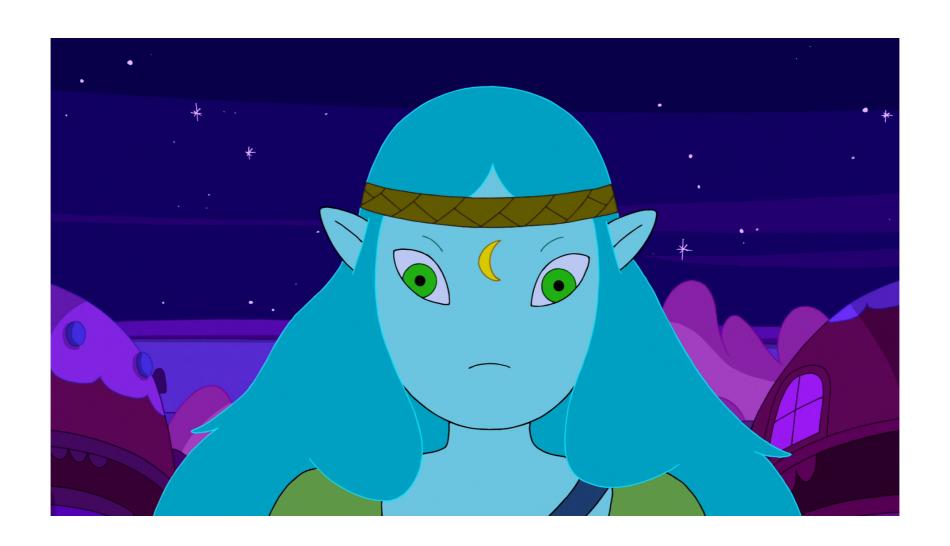


filter for rows



summarise & mutate

%>% to build logical wrangling pipelines



tidy data semantics from Journal of Statistical Software reading such as 'tidy data' idea paper