6: Factors with `forcats`

Suppose we have the following toy data set, named `df`, on the categorical variable `cat1` and the quantitative variable `x`.

cat	x	cat 1	cat 2
A	2	NewA	AB
B	-1	NewB	AB
C	14	NewC	C

- Change the names of factor levels with `fct_recode()`:

$$df \ \%>\% \ mutate(cat1 = fct\_recode(cat, \ newA = "A",$$
$$newB = "B",$$
$$newC = "C"))$$

- Collapse many levels of a factor into fewer levels with `fct_collapse()`

$$df \ \%>\% \ mutate(cat2 = fct\_collapse(cat,$$
$$AB = c("A", "B"),$$
$$C = "C"))$$

- Order levels of a factor by a quantitative variable with `fct_reorder()`:

$$df \ \%>\% \ mutate(cat3 = fct\_reorder(cat, x))$$
$$\llcorner levels: "B", "A", "C"$$
$$levels \ of \ cat: "A", "B", "C"$$

useful for
barplots &
side by-side
barplots.

- Manually order the levels of a factor with `fct_relevel()`:

$$df \ \%>\% \ mutate(cat4 = fct\_relevel(cat, c("C", "A", "B"))$$
$$\llcorner levels: "C", "A", "B"$$