**Solutions – Advanced**

Here’s the code you should have added:

advs <- advs\_temp %>%

# Calculate ABLFL

derive\_var\_extreme\_flag(

by\_vars = vars(STUDYID, USUBJID, PARAMCD),

order = vars(ADT),

new\_var = ABLFL,

mode = "last",

filter = (!is.na(AVAL) & ADT <= TRTSDT)

) %>%

# Calculate BASE

derive\_var\_base(

by\_vars = vars(STUDYID, USUBJID, PARAMCD)

) %>%

# Calculate CHG

derive\_var\_chg() %>%

# Sort the data frame

arrange(USUBJID, PARAMCD, ADT)

1. **80.29 kg**
2. **-0.44 C**
3. Use the same code as before, but change the red extracts below in the derive\_var\_extreme\_flag function:

advs2 <- advs\_temp %>%

…

order = vars(ADT, VSSEQ),

…

Use the following code to compare against the advs you created earlier:

library(diffdf)

# Compare 2 data frames advs & advs2 with the key variables USUBJID, PARAMCD, ADT

diffdf(advs, advs2, keys = c("USUBJID", "PARAMCD", "ADT"))

You should see printed to the console:

No issues were found!

This shows there was no impact of the change with the current data.

1. The average post-baseline weight for subject ‘01-701-1015’ is **53.2211 kg** (or you may have rounded to 53.22). *Note: you might have done this using mutate, but an admiral function exists to help here – see derive\_summary\_records:*

[*https://pharmaverse.github.io/admiral/reference/derive\_summary\_records.html*](https://pharmaverse.github.io/admiral/reference/derive_summary_records.html).

# Derive new parameter records

advs\_temp2 <- advs\_temp %>%

derive\_summary\_records(

by\_vars = vars(STUDYID, USUBJID, TRTSDT, PARAMCD, PARAM),

filter = (ADT > TRTSDT & PARAMCD == "WEIGHT"),

analysis\_var = AVAL,

summary\_fun = function(x) mean(x, na.rm = TRUE),

set\_values\_to = vars(DTYPE = "AVERAGE")

)

*You may also have added extra “by\_vars” depending on what should be retained from the average records.*