Homework: Loops and Functions

PLPA-5820 (Spring 2025)

Gabriel A. A. Silva

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Notes

```
library(tidyverse)
```

```
-- Attaching core tidyverse packages ----------------------- tidyverse 2.0.0 --
v dplyr     1.1.4     v readr     2.1.5
v forcats   1.0.0     v stringr   1.5.1
v ggplot2   3.5.1     v tibble    3.2.1
v lubridate 1.9.4     v tidyr     1.3.1
v purrr     1.0.4
-- Conflicts ------------------------------------------ tidyverse_conflicts() --
x dplyr::filter() masks stats::filter()
x dplyr::lag()    masks stats::lag()
i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to becor
```

```r
C_to_F <- function(celsius_temp){
  fahrenheit <- (9*celsius_temp/5 + 32)
  return(fahrenheit)
}

## As a for loop
loop_df <- data.frame(Celsius = numeric(), Fahrenheit = numeric())
for (i in -30:100){
  loop_df <- rbind(loop_df, data.frame(Celsius = i, Fahrenheit = C_to_F(i)))
}

## One liner
```

```
line_df <- as_tibble(data.frame(Celsius = seq(from = -30, to = 100),
                                Fahrenheit = C_to_F(seq(from = -30, to = 100))))

head(loop_df)
```

```
  Celsius Fahrenheit
1     -30      -22.0
2     -29      -20.2
3     -28      -18.4
4     -27      -16.6
5     -26      -14.8
6     -25      -13.0
```

```
head(line_df)
```

```
# A tibble: 6 x 2
  Celsius Fahrenheit
    <int>      <dbl>
1     -30        -22
2     -29      -20.2
3     -28      -18.4
4     -27      -16.6
5     -26      -14.8
6     -25        -13
```