Untitled

```
library(tidyverse)
```

```
── Attaching core tidyverse packages ──────────────────────── tidyverse 2.0.0 ──
✔ dplyr     1.1.2     ✔ readr     2.1.4
✔ forcats   1.0.0     ✔ stringr   1.5.0
✔ ggplot2   3.4.2     ✔ tibble    3.2.1
✔ lubridate 1.9.2     ✔ tidyr     1.3.0
✔ purrr     1.0.1
── Conflicts ────────────────────────────────────────── tidyverse_conflicts() ──
✖ dplyr::filter() masks stats::filter()
✖ dplyr::lag()    masks stats::lag()
ℹ Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to
become errors
```

Functions

Make a function that doubles a value.

```
double_value <- function(my_dollars) {
  print(2 * my_dollars)
}
```

```
double_value(my_dollars = 10.13)
```

```
[1] 20.26
```

```
monthly_income <- c(42, 50, 61, 75, 89, 50)

double_value(monthly_income)
```

```
[1]  84 100 122 150 178 100
```

Create a function that returns an awesome restaurant name given an cool animal and your favorite food.

```
name_restaurant <- function(animal, food) {
  print(paste0(animal, food))
}

name_restaurant(animal = "hawk", food = "pizza")
```

```
[1] "hawkpizza"
```

Given temperature in degrees fahrenheit, write a function that converts it to Celsius.

#(32**°F** − 32) × 5/9 = 0**°C**

```
convertFtoC <- function(temp_f) {
  print((temp_f -32) * (5/9))
}
```

```
convertFtoC(temp_f = 52)
```

```
[1] 11.11111
```

Create a function that given inputs of age and hometown, returns “I am __ years old, and I’m from ___.”

```
age_hometown <- function(age, hometown) {
  print(paste("I am", age, "years old, and I'm from", hometown))
}

age_hometown(age= 6, hometown = "Los Angeles")
```

```
[1] "I am 6 years old, and I'm from Los Angeles"
```

Functions with conditionals

```
calculate_animal_age <- function(species, age_human_years) {
  if(species == "dog") {
    age_human_years * 7
  } else if (species == "goat") {
    age_human_years * 4.7
  } else {
    print("Please enter dog or goat.")
  }
}
```

```
calculate_animal_age(species = "dog", age_human_years = 10)
```

```
[1] 70
```

```
calculate_animal_age(species = "whale", age_human_years = 4)
```

```
[1] "Please enter dog or goat."
```

Write a function that, given temperature in Kelvin, if a user selects “metric” to the scale then return degrees Celsius, or if they select “english” then return degrees in Fahrenheit.

```
convert_kelvin <- function(scale, temp_k) {
  if(scale == "metric") {
    temp_k - 273.15
  } else if (scale == "english") {
    ((temp_k - 273.15) * 1.8) + 32
  }
}
```

```
my_value <- convert_kelvin(scale = "metric", temp_k = 40)
```

More functions

Create a subset within a function and then return something based on that subset.

```
dog_choice <- data.frame(dog_name =c("Khora", "Teddy", "Waffle", "Banjo", "Tallie"),
                         food = c("everything", "salmon", "pancakes", "chicken", "enchila
```

```
dog_menu <- function(enter_dog_name) {
  my_subset <- filter(dog_choice, dog_name == enter_dog_name)
  print(paste("My name is", my_subset$dog_name, "and my favorite food is", my_subset$food
}
filter(dog_choice, dog_name == "Waffle")
```

```
  dog_name     food
1   Waffle pancakes
```

```
dog_menu(enter_dog_name = "Waffle")
```

```
[1] "My name is Waffle and my favorite food is pancakes"
```