First concept in programming languages - Data Types

print("200 is a number") => String data type

print(3.5) => Float data type

print(3) => Integer data type

Arithmetic operators

Calculate how many minutes there are in 20 days

print(20 \* 24 \* 60)

String Concatenation (a fancy word for combining multiple strings or adding stings together)

print("20 days are" + str(50) + "minutes")

Best way to write the code to calculate the number of minutes

print(f"20 days are {20 \* 24 \* 60} minutes") => f stands for format

Best way to write the code to calculate the number of seconds

print(f"20 days are {20 \* 24 \* 60 \* 60} minutes") => f stands for format

Variable - are containers for storing values

Naming Convention - is a convention (generally agreed scheme) for naming things.

calculations\_to\_seconds = 24 \* 60 \* 60

calculation\_to\_minutes = 24 \* 60

calculation\_to\_units = 24 \* 60 \* 60

name\_of\_unit = "seconds"

print(f"20 days are {20} \* calculation\_to\_units} {name\_of\_unit}")

NOTE: Always use descriptive variable names!

Functions - are blocks of code or logic in code that does something more complex used in order to avoid repeating the same logic.

A function is defined using the def keyword

Example:

calculation\_to\_units = 24 \* 60 \* 60

name\_of\_unit = "seconds"

def days\_to\_units():

print(f"20 days are {20 \* calculation\_to\_units} {name\_of\_unit}"

print("All good!")

call the function using days\_to\_units()

Parameters

Information can be passed into functions as parameters.

Parameters are also called arguments.

Scope

A variable is only available from inside the region it is created.

* Global Scope – variable available from within any scope
* Local (internal) Scope – variables created inside function can only be used inside that function.

Expression is an instruction that combines values and operators and always evaluates down to a single value.

input()

* To ask the user for an input
* Python stops executing when it comes to the input()
* input() is a built-in function that is provided by python itself

Casting is turning a string into a number or vice versa