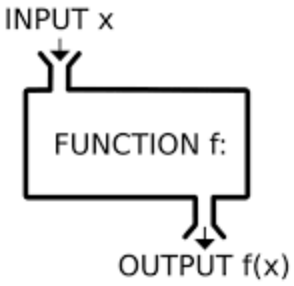
@October 8, 2024

Functions:



- Function is something that takes an input and give you an output
- Think of it like a factory
  - It will be making furniture (output)
  - Inputs: Materials (wood), Fuel, Humans, Machines
  - The factory takes inputs, does something to them and produces an output
- Reuse code
- It also helps to keep things in one place
- You have an online shop and need to check if you have enough ice creams:
  - You can write the programming logic in a function to check if you have ice creams
  - You can change this function to change the logic
- Repetitive block of code:
  - A system to take the names of 100 people
  - you have code that stores their name in a database

```
people = ["bob", "Ahmed", "Hannes", "Finley", "Tomisin".....] #
```

```
def store_in_db(name):
    print(name)
    store(name)

store_in_db("ahmed")

for x in people:
    store_in_db(x)
```

```
#Python functions

# Print
print("hello")
# len
lst = []
size = len(lst)

#range
range(1,10)
range(10,1,-1)

def number_adder(num1, num2):
    sum_of_two = num1 + num2
    print(f"this is inside the function {sum_of_two}")
    return sum_of_two

## Function definition


answer = number_adder(15, 20000) #calling the function
print(answer)
```

- Return keyword give you output back from a function

Project 5:

- To make a calculator that can multiply (*), Divide (/), Subtract (-) and add (+) two numbers
- You should use functions
- You should ask the user to input the numbers
- Ask user for the operation (add, multiply, divide, subtract)

```
user_input = input("Please choose the option from +, -, /, *")
num1 = int(input("Please enter the 1st number"))
num2 = int(input("Please enter the 2nd number"))

if user_input == "+":
    print(f"Result is {add(num1, num2)}")
elif user_input == "-":
    print(f"Result is {subtract(num1, num2)}")
elif user_input == "*":
    print(f"Result is {multiply(num1, num2)}")
elif user_input == "/":
    print(f"Result is {divide(num1, num2)}")
else:
    print("invalid input")
```