## Day 10: Functions with outputs

```
#Creating simple functions
def format name(f name, 1 name):
 formated_f_name=f_name.title()
 formated 1 name=1 name.title()
 return f"{formated_f_name} {formated_l_name}"
formated name=format name("SaLAd", "aSS")
print(formated_name)
     Salad Ass
#With · more · than · one · return · statement · (Early · return)
def·format name(f name, 1 name):
..if.f name.==."":
····return·"You·didn't·provide·valid·inputs!"·#This·terminates·the·function·early
..formated f name=f name.title()
..formated 1 name=1 name.title()
..return.f"{formated f name}.{formated 1 name}"
formated name=format name(input("What·is·your·first·name?·"), ·input("What·is·your·last·name?·
print(formated_name)
     What is your first name?
     What is your last name?
     You didn't provide valid inputs!
#Days in month
def is leap(year):
 if year % 4 == 0:
   if year % 100 == 0:
      if year % 400 == 0:
       return True
      else:
        return False
   else:
      return True
 else:
   return False
def days_in_month(years,months):
 month_days = [31, 28, 31, 30, 31, 30, 31, 30, 31, 30, 31]
 if months<1 or months>12:
   return "Invalid month"
```

```
if is leap(years) == True:
   month days[1] = 29
 return month days[months-1]
# Do NOT change any of the code below
year = int(input("Enter a year: "))
month = int(input("Enter a month: "))
days = days_in_month(year, month)
print(days)
     Enter a year: 2001
     Enter a month: 2
     28
#Docstrings: Little bits of documentation for the function
def format name(f name, 1 name):
  """Take the first and the last name, and format
 it to return the tittle case version of the full name."""
 if f name == '' or l name == "":
   return "You didn't provide valid inputs!" #This terminates the function early
 formated f name=f name.title()
 formated 1 name=1 name.title()
 return f"{formated_f_name} {formated_l_name}"
formated_name=format_name(input("What is your first name? "), input("What is your last name?
print(formated name)
     What is your first name? Sald
     What is your last name? eee
     Sald Eee
```

## - Calculator

```
#Creating the functions
#Add
def add(n1,n2):
    return n1 + n2

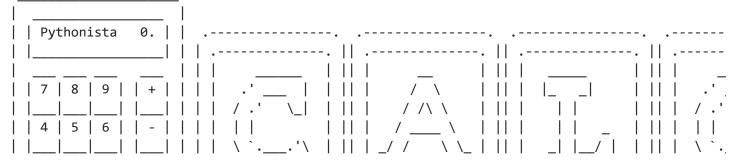
#Substract
def substract(n1,n2):
    return n1 - n2

#Multiply
def multiply(n1,n2):
```

```
return n1 * n2
#Divide
def divide(n1,n2):
  return n1 / n2
operations = {"+" : add , "-" : substract, "*" : multiply, "/" : divide}
num1 = int(input("Whats your first number?: "))
for i in operations:
  print(i)
operation symbol = input('Pick an operation from the line above: ')
num2 = int(input("Whats your second number?: "))
calculation function=operations[operation symbol]
answer= calculation function(num1,num2)
print(f"{num1} {operation_symbol} {num2} = {answer}")
    Whats your first number?: 23
     *
     Pick an operation from the line above: +
     Whats your second number?: 7
     23 + 7 = 30
num1 = int(input("Whats your first number?: "))
for i in operations:
  print(i)
operation symbol = input('Pick an operation from the line above: ')
num2 = int(input("Whats your second number?: "))
calculation_function=operations[operation_symbol]
answer= calculation function(num1,num2)
print(f"{num1} {operation_symbol} {num2} = {answer}")
```

```
flag = True
while flag == True:
 a = input(f"Type 'y' to continue calculating with {answer}, or type 'n' to exit: ")
 if a == "y":
   ans1=answer
   operation_symbol = input('Pick another operation: ')
   num2 = int(input("Enter the next number: "))
   calculation function=operations[operation symbol]
   answer = calculation function(answer, num2)
   print(f"{ans1} {operation symbol} {num2} = {answer}")
 elif a == "n":
   flag = False
 else:
   print("Follow the instructions!")
     Whats your first number?: 3
     Pick an operation from the line above: *
     Whats your second number?: 4
     3 * 4 = 12
     Type 'y' to continue calculating with 12, or type 'n' to exit: y
     Pick another operation: /
     Enter the next number: 6
     12 / 6 = 2.0
     Type 'y' to continue calculating with 2.0, or type 'n' to exit: y
     Pick another operation: *
     Enter the next number: 70
     2.0 * 70 = 140.0
     Type 'y' to continue calculating with 140.0, or type 'n' to exit: g
     Follow the instructions!
     Type 'y' to continue calculating with 140.0, or type 'n' to exit: n
```

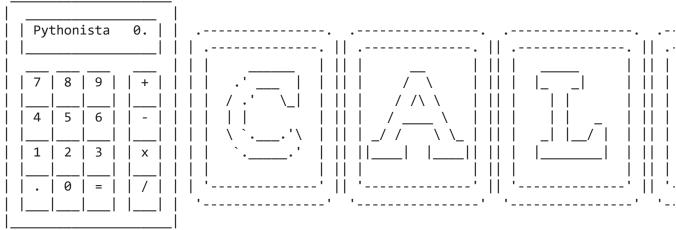
logo = """



```
def calculation():
 print(logo)
 num1 = float(input("Whats your first number?: "))
 for i in operations:
   print(i)
 operation symbol = input('Pick an operation from the line above: ')
 if operation symbol not in operations:
   answer = "Invalid operation"
   return answer
 num2 = float(input("Whats your second number?: "))
 calculation function=operations[operation symbol]
 answer = calculation function(num1,num2)
 print(f"{num1} {operation symbol} {num2} = {answer}")
 flag = True
 while flag == True:
   a = input(f"Type 'y' to continue calculating with {answer}, type 'n' to make a new calcul
   if a == "v":
      ans1=answer
      operation symbol = input('Pick another operation: ')
      if operation symbol not in operations:
        answer = "Invalid operation"
        return answer
     num3 = float(input("Enter the next number: "))
      calculation function=operations[operation symbol]
      answer = calculation_function(answer, num2)
      print(f"{ans1} {operation symbol} {num3} = {answer}")
   elif a == "E":
      flag = False
```

```
calculation()
else:
print("Follow the instructions!")
```

calculation()



```
Whats your first number?: 4
+
-
*
/
Pick an operation from the line above: *
Whats your second number?: 4
4.0 * 4.0 = 16.0
Type 'y' to continue calculating with 16.0, type 'n' to make a new calculation, or type Pick another operation: r
'Invalid operation'
```

## Colab paid products - Cancel contracts here

✓ 9s completed at 13:05



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