Day 10: Functions with outputs

```
#Creating simple functions
def format_name(f_name,l_name):
  formated_f_name=f_name.title()
  formated_l_name=l_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,l_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_l_name=l_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?
     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, 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,l_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_l_name=l_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 = """
 _____________________
|  _________________  |
| | Pythonista   0. | |  .----------------.  .----------------.  .----------------.  .-------
| |_________________| | | .--------------. || .--------------. || .--------------. || .------
|  ___ ___ ___   ___  | | |     _______    | || |      __      | || |   _____      | || |     _
| | 7 | 8 | 9 | | + | | | |   .' ___  |   | || |     /  \     | || |  |_   _|     | || |   .' .
| |___|___|___| |___| | | |  / .'   \_|   | || |    / /\ \    | || |    | |       | || |  / .'
| | 4 | 5 | 6 | | - | | | |  | |         | || |   / ____ \   | || |    | |   _   | || |  | |
| |___|___|___| |___| | | |  \ `.___.'\   | || | _/ /    \ \_ | || |   _| |__/ |  | || |  \ `.
```

```
    | | 1 | 2 | 3 | | x | | | |   `._____.'  | || ||____|  |____|| || |  |________|  | || |   `._
    | |___|___|___| |___| | | |              | || |              | || |              | || |
    | | . | 0 | = | | / | | | '--------------' || '--------------' || '--------------' || '------
    | |___|___|___| |___| |  '----------------'  '----------------'  '----------------'  '-------
    |_____________________|
    """




    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 == "y":
          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
        elif a=="n":
```

```
    elif a== n :
      calculation()
    else:
      print("Follow the instructions!")

calculation()
```

```
 _____________________
|  _________________  |
| | Pythonista   0. | |  .----------------.  .----------------.  .----------------.  .-
| |_________________| | | .--------------. || .--------------. || .--------------. || .-
|  ___ ___ ___   ___  | | |     _____    | || |      __      | || |   _____      | || |
| | 7 | 8 | 9 | | + | | | |   .' ___  |   | || |     /  \     | || |  |_   _|     | || |
| |___|___|___| |___| | | |  / .'   \_|   | || |    / /\ \    | || |    | |       | || |
| | 4 | 5 | 6 | | - | | | |  | |         | || |   / ____ \   | || |    | |   _   | || |
| |___|___|___| |___| | | |  \ `.___.'\   | || | _/ /    \ \_ | || |   _| |__/ |  | || |
| | 1 | 2 | 3 | | x | | | |   `._____.'   | || ||____|  |____|| || |  |________|  | || |
| |___|___|___| |___| | | |              | || |              | || |              | || |
| | . | 0 | = | | / | | | '--------------' || '--------------' || '--------------' || '-
| |___|___|___| |___| |  '----------------'  '----------------'  '----------------'  '-
|_____________________|
```

```
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'
```

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✓ 9s completed at 13:05

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