Richard Hayes Crowley

06/09/2021  
CSC\_242\_LAB\_02   
  
**Source code:**

*# ---------------------------------------------------*

*# Richard Hayes Crowley*

*# CSC\_242*

*# ---------------------------------------------------*

def getCustomerData():

custName = input("please enter the Customer Name: ")

custID = int(input("please enter the Customer Number: "))

custAddress = input("please enter the Customer's address: ")

kwhUsed = int(input("please enter Kilowatt - Hours ( KWH ) used: "))

pastDue = float(input("please enter the amount past due: "))

*return* {"custName": custName, "custID": custID, "custAddress": custAddress, "kwhUsed": kwhUsed, "pastDue": pastDue}

*# ---------------------------------------------------*

def calculateElecticBill(*kwhUsed*, *pastDue*):

amt = 0

penalty = 0

total = 0

surcharge = 0

*if* *kwhUsed* <= 125:

amt = .10 \* *kwhUsed*

*elif* *kwhUsed* <= 325:

amt = 12.50 + (0.09 \* *kwhUsed*)

*elif* *kwhUsed* <= 500:

amt = 30.60 + (0.08 \* *kwhUsed*)

*else*:

amt = 42.60 + (0.06 \* *kwhUsed*)

*# if If the electricity bill, prior to any amount past due, exceeds $ 300 then a surcharge of 12 % will be charged.*

*if* amt > 300:

surcharge = amt \* 0.12

penalty = *pastDue* \* 0.025

total = amt + *pastDue* + penalty + surcharge

*return* {"total": total, "penalty": penalty, "pastDue": *pastDue*, "surcharge": surcharge}

*# ---------------------------------------------------*

*# call the functions*

customer = getCustomerData()

bill = calculateElecticBill(customer["kwhUsed"], customer["pastDue"])

*# destructure dict values*

custId, custName, custAddress, kwhUsed = customer["custID"], customer[

"custName"], customer["custAddress"], customer["kwhUsed"],

total, penalty, pastDue, surcharge = f"{round(bill['total'],2):0.2f}", f"{round(bill['penalty'],2):0.2f}", f"{round(bill['pastDue'],2):0.2f}", f"{round(bill['surcharge'],2):0.2f}"

*# ---------------------------------------------------*

*# display the Electricity Bill Summary*

print("Electricity Bill")

print("\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\n")

print("Customer ID Number\t", custId)

print("Customer Name\t", custName)

print("Customer Address\t", custAddress)

print("\n")

print(f"KWH Kilowatt - Hours ( KWH ) used\t {kwhUsed} KWH")

print(

f"Surcharge (if bill is greater than $300, add 12% surcharge)\t {surcharge}")

print(f"Amount past due\t {pastDue}")

print(f"Penalty\t {penalty}")

print(f"Total owed\t {total}")

**Output:** Text

Description automatically generated