**Unit 4 2022 mock lawn**

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**Code**

#creates an empty list called customerdetails

CustomerDetails = []

#creates an empty list called lawndetails

LawnDetails = []

#creates a list called quality and assignes 9 values to it

Quality = [

["1 = luxury", 1.15],

["2 = standard", 0.80],

["3 = economy", 0.45],

]

#prints out a message #customer details

print("--- customer details---")

#variable name is created with an input for user to enter

name = input("Enter your name: ")

#variable length is created which checks the length of characters in varaible name

length = len(name)

#variable called name\_count is assigned by length

name\_count = length

#while loop will run until name\_count is more than 1 so user must enter a name

while name\_count < 1:

#variable name is created with an input for user to enter

name = input("Enter your name : ")

#variable length is created which checks the length of characters in varaible nam

length = len(name)

#variable called name\_count is assigned by length

name\_count = length

#variable address is created with an input for user to enter

address = input("Enter your address: ")

#variable length2 is created which checks the length of characters in varaible address

length2 = len(address)

#variable called address\_count is assigned by length2

address\_count = length2

#while loop will run until address\_count is more than 1 so user must enter an address

while address\_count < 1:

#variable address is created with an input for user to enter

address = input("Enter your address: ")

#variable length2 is created which checks the length of characters in varaible address

length2 = len(address)

#variable called address\_count is assigned by length2

address\_count = length2

#while loop is name and will run until address\_count is more than 1 so user must enter an address

#variable number is created with an input for user to enter

number = input("Enter your phone number: ")

#variable length3 is created which checks the length of characters in varaible number

length3 = len(number)

#variable called address\_count is assigned by length3

number\_count = length3

#while loop will run until number\_count is more than 1 so user must enter thier number

while number\_count < 1:

#variable number is created with an input for user to enter

number = input("Enter your phone number: ")

#variable length3 is created which checks the length of characters in varaible number

length3 = len(number)

#variable called number\_count is assigned by length3

number\_count = length3

# if loop is created and will run if variable number is a string value

if number == str():

#variable number is created with an input for user to enter

number = input("Enter your phone number : ")

#variable length3 is created which checks the length of characters in varaible number

length3 = len(number)

#variable called address\_count is assigned by length3

number\_count = length3

#value assigned to varaible name is now added to CustomerDetails list

CustomerDetails.append(name)

#value assigned to varaible address is now added to CustomerDetails list

CustomerDetails.append(address)

#value assigned to varaible number is now added to CustomerDetails list

CustomerDetails.append(number)

#prints out list which is assined by user in earlier inputs

print("Customer details:", CustomerDetails)

#prints a message called surface details

print("\n--- surface details---")

#creates a interger value variable which is assined by user

width = int(input("Enter the width of your lawn number: "))

#creates a interger value variable which is assined by user

length = int(input("Enter the length of your lawn number: "))

#creates a while loop and will run if value of variable width is not in the range of 2 and 30

while width < 2 or width > 30:

#prints out a message reminding user to enter in the range of 2 and 30

print("width must be between 2 and 30")

#creates a interger value variable called width which is assined by user

width = int(input("Enter the width of your lawn number: "))

#creates a while loop and will run if value of variable length is not in the range of 2 and 50

while length < 2 or length > 50:

#prints out a message reminding user to enter in the range of 2 and 50

print("length must be between 2 and 50")

#creats a interger value variable called length which is assined by user

length = int(input("Enter the length of your lawn number: "))

#value assigned to varaible width is now added to LawnDetails list

LawnDetails.append(width)

#value assigned to varaible length is now added to LawnDetails list

LawnDetails.append(length)

#prints out values assinged in list lawndetails

print("Lawn details:", LawnDetails)

#prints out a message saying quality details

print("\n --- quality details---")

# creates a for loop to run item in variable pre assigned list quality

for item in Quality:

# prints out the first item in list then gives a space then does second and gives a space

print(item[0], " " \* (6 - len(item[0])), ":", item[1], " " \* (6 - len(item[0])))

#variable quality\_price is created and assigned with value 0

quality\_price = 0

#varaible called quality\_choice is made and allows user to enter an integer value

quality\_choice = int(input("please choose an appropriate number from the list above:"))

#if user has assigned the integer value 1 to varaible quality\_choice then

if quality\_choice == 1:

#will print the amount per square metre

print("per square metre cost £1.15")

#varaible quality\_price is now reassigned with the value 1.15

quality\_price = 1.15

#variable choice is assigned string value "luxury"

choice = "luxury"

#else if user has assigned the integer value 2 to varaible quality\_choice then

elif quality\_choice == 2:

#will print the amount per square metre

print("per square metre cost £0.80")

#varaible quality\_price is now reassigned with the value 0.8

quality\_price = 0.8

#variable choice is assigned string value "standard"

choice = "standard"

#else if user has assigned the integer value 3 to varaible quality\_choice then

elif quality\_choice == 3:

#will print the amount per square metre

print("per square metre cost £0.45")

#varaible quality\_price is now reassigned with the value 0.45

quality\_price = 0.45

#variable choice is assigned string value "economy"

choice = "economy"

# if user entered another value other than 1 2 or 3 then

else:

#output a message saying retry

print("retry")

#varaible called quality\_choice allows user to reassign and enter an integer value

quality\_choice = int(input("please choose an appropriate number from the list above:"))

print("enter : 1 , 2 or 3")

#outputs a message saying price details

print("\n --- price details---")

#displays uers quality price

print(quality\_price, "is the price per square metre")

#variable called square is created and is assinged to the value of varaible length times width

square = length \* width

#prints a message which tells user how much there area they have in square metres

print("your lawn in square metres is ",square,)

#creates a varaible called labour and assigns 0.5

labour = 0.5

#creates variable called labourtotal which is varaiable square times labour

labourtotal = square \* labour

#displays the labour total

print("labour charge for total surface is ", labourtotal)

#varaible square\_total\_charge is variable square times quality\_price

square\_total\_charge = square \* quality\_price

#outputs total for square metres then the quality choice then the amount for the area

print("total amount for", square, "m is", choice, "is", square\_total\_charge)

#varable subtotal is created and assigned value of varable square\_total\_charge times labourtotal

subtotal = square\_total\_charge + labourtotal

#outputs subtotal

print("sub total is ", subtotal)

#variable called vat is assined at 0.2 (=) 20%

vat = 20 / 100

#varaible vat charge is assigned value of subtotal times vat

vatcharge = subtotal \* vat

#displayes varible vatcharge

print(vatcharge, "is ur VAT charge")

#total is made by subtotal + vatcharge

total = subtotal + vatcharge

#outputs total

print("total charge with VAT is", total)