**Mohammed Mahin Ibnay Mamun (346584)**

**Unit 4 Lawn 2022 Mock Pseudocode**

CustomerDetails = empty List []

LawnDetails = empty List []

Quality = List [

["1 = luxury", 1.15],

["2 = standard", 0.80],

["3 = economy", 0.45],

]

OUTPUT ("--- customer details---")

Name = USERINPUT ("Enter your Name: ")

LENGTH = Len (NAME)

Name\_count = LENGTH

WHILE Name\_count < 1THEN

Name = USERINPUT ("Enter your Names: ")

LENGTH = Len (Name)

Name\_count = LENGTH

address = USERINPUT ("Enter your address: ")

LENGTH2 = Len(address)

address\_count = LENGTH2

WHILE address\_count < 1THEN

address = USERINPUT ("Enter your address: ")

LENGTH2 = Len(address)

address\_count = LENGTH2

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

LENGTH3 = Len(number)

number\_count = LENGTH3

WHILE number\_count < 1THEN

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

LENGTH3 = Len(number)

number\_count = LENGTH3

IF number == STRING () THEN

number = USERINPUT ("Enter your number: ")

LENGTH3 = Len(number)

number\_count = LENGTH3

CustomerDetails.APPEND(NAME)

CustomerDetails.APPEND(address)

CustomerDetails.APPEND(number)

OUTPUT ("Customer details:", CustomerDetails)

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

Width = INTEGER (USERINPUT ("Enter the Width of your lawn number: "))

Length = INTEGER (USERINPUT ("Enter the Length of your lawn number: "))

WHILE Width < 2 or Width > 30 THEN

OUTPUT ("Width must be between 2 and 30")

Width = INTEGER (USERINPUT ("Enter the Width of your lawn number: "))

WHILE Length < 2 or Length > 50 THEN

OUTPUT (" Length must be between 2 and 50")

Length = INTEGER (USERINPUT ("Enter the Length of your lawn number: "))

LawnDetails.APPEND(Width)

LawnDetails.APPEND(Length)

OUTPUT ("Lawn details:", LawnDetails)

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

for ITEM in Quality THEN

OUTPUT (ITEM [0], " " \* (6 - Len (ITEM [0])), ":", ITEM [1],

" " \* (6 - Len (ITEM [0])))

Quality\_price = 0

Quality\_choice = INTEGER (USERINPUT ("please choose an appropriate number from the list above:"))

IF quality\_choice == 1 THEN

OUTPUT ("per square metre cost £1.15")

Quality\_price = 1.15

Choice = "luxury"

ELIF quality\_choice == 2 THEN

OUTPUT ("per square metre cost £0.80")

Quality\_price = 0.8

Choice = "standard"

ELIF quality\_choice == 3 THEN

OUTPUT ("per square metre cost £0.45")

Quality\_price = 0.45

Choice = "economy"

ELSE THEN

OUTPUT("retry")

Quality\_choice = INTEGER (USERINPUT ("please choose an appropriate number from the list above:"))

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

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

OUTPUT(Quality\_price, "is the price per square metre")

Square = Length \* Width

OUTPUT (

"Your lawn in square meters is ", Square,)

Labour = 0.5

Labour\_total = square \* Labour

OUTPUT ("labour charge for total surface is ", Labour\_total)

Square\_total\_charge = Square \* Quality\_price

OUTPUT ("total amount for", Square, "m is", choice, "is", Square\_total\_charge)

Subtotal = Square\_total\_charge + Labour\_total

OUTPUT ("sub total is ", Subtotal)

Vat = 20 / 100

Vat\_charge = subtotal \* Vat

OUTPUT (vat\_charge, "is your VAT charge")

Total = subtotal + Vat\_charge

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

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**CODE in python**

#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 an interger value variable which is assined by user

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

#Creates an 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 an 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")

#Creates an 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 preassigned 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 their 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 ("subtotal 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)