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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)

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
```

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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
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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)
```