

## Unit 4 2022 Mock Lawn

### Mohammed Mahin Ibnay Mamun

#### TEST PLAN 1

11 normal, 8 extreme and 7 boundary tests

Test No	Purpose of test	Test Data	Expected result
1	normal testing	Run code to see if name can be inputted	Should allow user to enter name
2	normal testing	Run code to see if the address can be inputted	Code should let the user type their address
3	normal testing	Run code to see if number can be inputted	Code will ask for number from the user
4	normal testing	Does code display variables in a list	Code should say customer details and print out the following
5	normal testing	Check code if user can enter width of lawn	Should let user enter an integer value
6	normal testing	Check code if user can enter width of lawn	Should let user enter an integer value
7	normal testing	Does code display variables for the surface in a list	Code should say lawn details and print out the values from the variable's length and width
8	normal testing	Does list for quality details display	Code should run all the options for qualities and the price per square metre

9	Normal tested	Can user enter an input for their choice of quality	Should allow user to enter a number 1 2 or 3
10	normal testing	Does the code show how much per square metre cost	Code should say the amount per square metre
11	Normal testing	Does code print a summary of all the costs	Bottom of code should display the vat subtotal and final total with vat
12	Extreme testing	Checking what happens if name is left empty	Code should repeat in a while loop until there is an input
13	Extreme testing	Checking what happens if the address is left empty	Code should repeat in a while loop until there is an input
14	Extreme testing	Checking what happens if the number is left empty	Code should repeat in a while loop until there is an input
15	Extreme testing	What happens when entry of length is too much	Should repeat over again until it meets the range
16	Extreme testing	What happens when entry of width is too much	Code should repeat until it matches the range

17	Extreme testing	What happens when entry of length is too less	Code shall keep repeating until the user enters in the range
18	Extreme testing	What happens when entry of length is too less	Code shall keep repeating until the user enters in the range
19	Extreme testing	What happens if the user enters out of range 1 2 or 3 for the quality of lawn	Code shall keep repeating until the user enters in the range
20	Boundry testing	What happens if we get a 30 width by 50 length and luxury quality	The bill at the end of the code will be displayed and the total will be high
21	Boundry testing	What happens if we get a 2 width by 2 length economy quality	The total will be low but not the lowest possible
22	Boundry testing	What happens if we get a 30 width by 50 length and standard quality	Cost will be high but not the highest possible
23	Boundry testing	What happens if we get a 2 width by 2 length standard quality	The total will be low but not the lowest possible
24	Boundry testing	What happens if we get a 30 width by 50 length and economy quality	Cost will be high but not the highest possible
25	Boundry testing	What happens if we get a 2 width by 2 length economy quality	This will be the lowest possible cost

26	Boundry testing	What happens if we go for the medium and get 14 widths by 28 and standard	The result of this will be the midpoint of all code
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## Mohammed Mahin Ibnay Mamun

TEST PLAN 2 with code and comments included

11 normal, 8 extreme and 7 boundary tests

Test No	Purpose of test	Test Data	Expected result	Actual code	Comment
1	normal testing	Run code to see if name can be inputted	Should allow user to enter name	--- customer details--- Enter your name: Mahin	#prints out print("--- #variable name = inp #Variable input for u
2	normal testing	Run code to see if the address can be inputted	Code should let the user type their address	Enter your address: 22 green st	address = i #Variable an input fo
3	normal testing	Run code to see if number can be inputted	Code will ask for number from the user	Enter your phone number: 077328372	number = inp #Variable an input fo
4	normal testing	Does code display variables in a list	Code should say customer details and print out the following	Customer details: ['mahin', '22 green st', '077328372']	CustomerD #value a CustomerD #value as CustomerD print("Custom
5	normal testing	Check code if user can enter width of lawn	Should let user enter an integer value	Enter the width of your lawn number: 12	width = int( #Creates a variable w

6	normal testing	Check code if user can enter width of lawn	Should let user enter an integer value	Enter the length of your lawn number: 24	length = int( #Creates a variable w
7	normal testing	Does code display variables for the surface in a list	Code should say lawn details and print out the values from the variable's length and width	Lawn details: [12, 24]	LawnDetail #value a LawnDetail print("Law
8	normal testing	Does list for quality details display	Code should run all the options for qualities and the price per square metre	--- quality details--- 1 = luxury : 1.15 2 = standard : 0.8 3 = economy : 0.45	Quality ["1 = ["2 = ["3 = ] for item in Qual # prints out print(item[0],
9	Normal tested	Can user enter an input for their choice of quality	Should allow user to enter a number 1 2 or 3	please choose an appropriate number from the list above:1	quality_choice = #Variable made and integer va
10	normal testing	Does the code show how much per square metre cost	Code should say the amount per square metre	per square metre cost £1.15	print("per #will print metre
11	Normal testing	Does code print a summary of all the costs	Bottom of code should display the vat subtotal and final total with vat	--- price details--- 1.15 is the price per square metre your lawn in square metres is 288 labour charge for total surface is 144.0 total amount for 288 m is luxury is 331.2 sub total is 475.2 95.04 is ur VAT charge total charge with VAT is 570.24	subtotal = sq #outputs sub print("sub to  vat = 2 #varaib vatchar  total = sub #outputs tot print("total
12	Extreme testing	Checking what happens if name is left empty	Code should repeat in a while loop until there is an input	--- customer details--- Enter your name: Enter your name : Enter your name : Enter your name : Enter your name : Enter your name : mahin Enter your address:	while name, #variabl name = i #variabl length = #variabl name cou  # Code ch if it is less

13	Extreme testing	Checking what happens if the address is left empty	Code should repeat in a while loop until there is an input	<pre> Enter your address: Enter your address: Enter your address: Enter your address: 22 green st Enter your phone number: </pre>	<pre> while address == '':     #variable n     address = input('Enter your address: ')     #variable l     length2 = len(address)     #variable c     address_count = 0     # Code checks if it is less than 2 </pre>
14	Extreme testing	Checking what happens if the number is left empty	Code should repeat in a while loop until there is an input	<pre> Enter your phone number: Enter your phone number: Enter your phone number: Enter your phone number: 0382038283 </pre>	<pre> while number_count == 0:     #variable n     number = input('Enter your phone number: ')     #variable l     length3 = len(number)     #variable c     number_count = 0     # Code checks if it is less than 10 </pre>
15	Extreme testing	What happens when entry of length is too much	Should repeat over again until it meets the range	<pre> Enter the width of your lawn number: 99 Enter the length of your lawn number: 99 width must be between 2 and 30 Enter the width of your lawn number: 12 length must be between 2 and 50 Enter the length of your lawn number: 14 </pre>	<pre> while length == 99:     #prints out     print("length must be between 2 and 50")     #creates a variable     length = input('Enter the length of your lawn number: ') </pre>
16	Extreme testing	What happens when entry of width is too much	Code should repeat until it matches the range	<pre> Enter the width of your lawn number: 99 Enter the length of your lawn number: 99 width must be between 2 and 30 Enter the width of your lawn number: 12 length must be between 2 and 50 Enter the length of your lawn number: 14 </pre>	<pre> while width == 99:     #prints out     print("width must be between 2 and 30")     #creates a variable     width = input('Enter the width of your lawn number: ') </pre>
17	Extreme testing	What happens when entry of length is too less	Code shall keep repeating until the user enters in the range	<pre> --- surface details--- Enter the width of your lawn number: 1 Enter the length of your lawn number: 1 width must be between 2 and 30 Enter the width of your lawn number: 3 length must be between 2 and 50 Enter the length of your lawn number: 5 </pre>	<pre> while length == 1:     #prints out     print("length must be between 2 and 50")     #creates a variable     length = input('Enter the length of your lawn number: ') </pre>
18	Extreme testing	What happens when entry of width is too less	Code shall keep repeating until the user enters in the range	<pre> --- surface details--- Enter the width of your lawn number: 1 Enter the length of your lawn number: 1 width must be between 2 and 30 Enter the width of your lawn number: 3 length must be between 2 and 50 Enter the length of your lawn number: 5 </pre>	<pre> while width == 1:     #prints out     print("width must be between 2 and 30")     #creates a variable     width = input('Enter the width of your lawn number: ') </pre>
19	Extreme testing	What happens if the user enters out of range 1 2 or 3 for the quality of lawn	Code shall keep repeating until the user enters in the range	<pre> please choose an appropriate number from the list above: retry please choose an appropriate number from the list above: </pre>	<pre> else:     #output a message     print("retry")     #variable called     quality_choice = input('please choose an appropriate number from the list above: ')     print("enter : ") </pre>

20	Boundry testing	What happens if we get a 30 width by 50 length and luxury quality	The bill at the end of the code will be displayed and the total will be high	<pre> --- price details--- 1.15 is the price per square metre your lawn in square metres is 1500 labour charge for total surface is 750.0 total amount for 1500 m is luxury is 1724.99 sub total is 2475.0 495.0 is ur VAT charge total charge with VAT is 2970.0 </pre>	<pre> square = length #prints a message print("your lawn is " + str(square) + " square metres")  #creates a variable for the price per square metre labour = 0.5  #creates variable for the total amount labourtotal = square * labour  #displays the total amount print("labour charge for total surface is " + str(labourtotal) + ".0")  #Variable square_total_charge square_total_charge = square * 1.15  #outputs total amount print("total amount for 1500 m is luxury is " + str(square_total_charge) + ".0")  vat = 20 / 100  #variable vat_charge vat_charge = square_total_charge * vat  #displays vat charge print("vat charge is " + str(vat_charge) + ".0")  #total is made by adding labourtotal and vat_charge total = labourtotal + vat_charge  #outputs total amount print("total charge with VAT is " + str(total) + ".0") </pre>
21	Boundry testing	What happens if we get a 2 width by 2 length luxury quality	The total will be low but not the lowest possible	<pre> --- price details--- 1.15 is the price per square metre your lawn in square metres is 4 labour charge for total surface is 2.0 total amount for 4 m is luxury is 4.6 sub total is 6.6 1.32 is ur VAT charge total charge with VAT is 7.92 </pre>	<pre> square = length #prints a message print("your lawn is " + str(square) + " square metres")  #creates a variable for the price per square metre labour = 0.5  #creates variable for the total amount labourtotal = square * labour  #displays the total amount print("labour charge for total surface is " + str(labourtotal) + ".0")  #Variable square_total_charge square_total_charge = square * 1.15  #outputs total amount print("total amount for 4 m is luxury is " + str(square_total_charge) + ".0")  vat = 20 / 100  #variable vat_charge vat_charge = square_total_charge * vat  #displays vat charge print("vat charge is " + str(vat_charge) + ".0")  #total is made by adding labourtotal and vat_charge total = labourtotal + vat_charge  #outputs total amount print("total charge with VAT is " + str(total) + ".0") </pre>
22	Boundry testing	What happens if we get a 30 width by 50 length and standard quality	Cost will be high but not the highest possible	<pre> --- price details--- 0.8 is the price per square metre your lawn in square metres is 1500 labour charge for total surface is 750.0 total amount for 1500 m is standard is 1200 sub total is 1950.0 390.0 is ur VAT charge total charge with VAT is 2340.0 </pre>	<pre> square = length #prints a message print("your lawn is " + str(square) + " square metres")  #creates a variable for the price per square metre labour = 0.5  #creates variable for the total amount labourtotal = square * labour  #displays the total amount print("labour charge for total surface is " + str(labourtotal) + ".0")  #Variable square_total_charge square_total_charge = square * 0.8  #outputs total amount print("total amount for 1500 m is standard is " + str(square_total_charge) + ".0")  vat = 20 / 100  #variable vat_charge vat_charge = square_total_charge * vat  #displays vat charge print("vat charge is " + str(vat_charge) + ".0")  #total is made by adding labourtotal and vat_charge total = labourtotal + vat_charge  #outputs total amount print("total charge with VAT is " + str(total) + ".0") </pre>

23	Boundry testing	What happens if we get a 2 width by 2 length standard quality	The total will be low but not the lowest possible	<pre> --- price details--- 0.8 is the price per square metre your lawn in square metres is 4 labour charge for total surface is 2.0 total amount for 4 m is standard is 3.2 sub total is 5.2 1.04 is ur VAT charge total charge with VAT is 6.24 </pre>	<pre> square = length #prints a message print("your lawn is " + str(square) + " square metres")  #creates a variable for labour labour = 0.5 #creates variable for labour total labourtotal = square * labour #displays the labour total print("labour charge is " + str(labourtotal) + " pounds")  #variable for square total charge square_total_charge = square * 0.8 #outputs total charge print("total amount for " + str(square) + " m is standard is " + str(square_total_charge) + " pounds")  vat = 20 / 100 #variable for vat charge vatcharge = square_total_charge * vat #displays vat charge print("vat charge is " + str(vatcharge) + " pounds")  #total is made total = square_total_charge + vatcharge #outputs total print("total amount for " + str(square) + " m is standard is " + str(total) + " pounds") </pre>
24	Boundry testing	What happens if we get a 30 width by 50 length and economy quality	Cost will be high but not the highest possible	<pre> --- price details--- 0.45 is the price per square metre your lawn in square metres is 1500 labour charge for total surface is 750.0 total amount for 1500 m is economy is 675.0 sub total is 1425.0 285.0 is ur VAT charge total charge with VAT is 1710.0 </pre>	<pre> square = length #prints a message print("your lawn is " + str(square) + " square metres")  #creates a variable for labour labour = 0.5 #creates variable for labour total labourtotal = square * labour #displays the labour total print("labour charge is " + str(labourtotal) + " pounds")  #variable for square total charge square_total_charge = square * 0.45 #outputs total charge print("total amount for " + str(square) + " m is economy is " + str(square_total_charge) + " pounds")  vat = 20 / 100 #variable for vat charge vatcharge = square_total_charge * vat #displays vat charge print("vat charge is " + str(vatcharge) + " pounds")  #total is made total = square_total_charge + vatcharge #outputs total print("total amount for " + str(square) + " m is economy is " + str(total) + " pounds") </pre>
25	Boundry testing	What happens if we get a 2 width by 2 length standard quality	This will be the lowest possible cost	<pre> --- price details--- 0.45 is the price per square metre your lawn in square metres is 4 labour charge for total surface is 2.0 total amount for 4 m is economy is 1.8 sub total is 3.8 0.76 is ur VAT charge total charge with VAT is 4.56 </pre>	<pre> square = length #prints a message print("your lawn is " + str(square) + " square metres")  #creates a variable for labour labour = 0.5 #creates variable for labour total labourtotal = square * labour #displays the labour total print("labour charge is " + str(labourtotal) + " pounds")  #variable for square total charge square_total_charge = square * 0.45 #outputs total charge print("total amount for " + str(square) + " m is economy is " + str(square_total_charge) + " pounds")  vat = 20 / 100 #variable for vat charge vatcharge = square_total_charge * vat #displays vat charge print("vat charge is " + str(vatcharge) + " pounds")  #total is made total = square_total_charge + vatcharge #outputs total print("total amount for " + str(square) + " m is economy is " + str(total) + " pounds") </pre>



26	Boundry testing	What happens if we go for the medium and get 14 widths by 28 and standard	The result of this will be the midpoint of all code	<pre>--- price details--- 0.8 is the price per square metre your lawn in square metres is 392 labour charge for total surface is 196.0 total amount for 392 m is standard is 313.6 sub total is 509.6 101.92000000000002 is ur VAT charge total charge with VAT is 611.52</pre>	<pre>square = length #prints a message print("your lawn is " + str(square) + " square metres")  #creates a variable for labour labour = 0.5 #creates variable for total amount labourtotal = square * labour #displays the labour total print("labour charge is " + str(labourtotal) + " pounds")  #variable for standard price square_total_charge = square * 0.8 #outputs total amount print("total amount for standard is " + str(square_total_charge) + " pounds")  vat = 20 / 100 #variable for vat vatcharge = square_total_charge * vat #displays vat charge print("vat charge is " + str(vatcharge) + " pounds")  #total is made total = square_total_charge + vatcharge #outputs total amount print("total amount with vat is " + str(total) + " pounds")</pre>
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