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Unit 4 2022 lawn Evaluation

My code overall is amazingly effective as it meets all the requirements asked for. Overall, I would say I found this task very easy, and I had a good understanding of what I needed to do to succeed. As a junior software developer, my job is to create a program which would result in calculating the cost of the law cutting for gardeners. The first thing I had to know about this project was what I needed to do and ask for. I needed to create a program which allowed users to enter the following details:

- customer details:
- name
- address
- phone number
- Width of lawn
- Height of lawn
- Quality of lawn

My code also includes the total cost Aswell as labor charge and vat which was asked in the task brief.

Before my code, I made a flowchart which was very simple, and I also used the BSC symbol for outputs. I also added lists to my flowchart. The flowchart was very easy to create because I have done many practices on making flowcharts.

I then made pseudocode. This part was particularly simple. Pseudocode is half code half English which made it easy to create. This also helped me get a head start with my code as it was very similar to code.

By completing this project, I used a range of different coding techniques such as lists loops operators and much more. The code was quite repetitive which made it easier, however there were areas which needed altering. For example, the customer details. Asking for a name, address and number only requires a few lines of code which can be copied, pasted, and altered. However, when it came to testing (normal / extreme and boundary) extra code needed to be added. A code

which was first 3 lines became 6 lines. This took some extra time but was not too hard to work out due to the experience and resources I had to guide me from my classroom. In this area, the tricky parts were adding the data validations. Once I got the data validations working the rest simply put them in while loops so that it runs infinitely until the condition is met.

I had to use while loops in my code to repeat the code over and over for each time the user leaves the input empty. I did this by using the Len function to count the characters in the variable. Then I stared the amount into a variable for example name_count. Then my loop stars with while name_count < 1: it then lets the user enter again and check again if they have entered characters length = Len(name) , name_count = length

Another area in this code where I struggled was with the if statement for the quantity lawn. I did not really struggle it was more of the code not running as expected. I had 2 code ideas to try. However, when one was working the other was not and it was messing up. This code was == if length< 2 or length >50: and the other was == if length < 2 and length>50: both these codes worked but also did not at the same time. However, in the end I managed to get it working.

I had some trouble with my list in code. I first used a dictionary but then I was not able to use append therefore I had to use lists instead. After I fixed this issue, it was easier to carry on using the list, I was able to make more and call them to display the summary and details.

I created a list at the start of my code called quality and put the 3 types of quality given to me on the brief and the price per square metre with it. This part of my code was very tricky to do, I knew how to recall the list however I wanted them on separate lines with spacing, so my code looks more user friendly and more efficient. To do this I had to add the following code which took me a while to test and think off.

for item in Quality:

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

I had to use an if and Elif loop which I found extremely easy because I have done it a lot. I had to use if quality_choice == 1: Elif quality_choice == 2: Elif quality_choice == 3: inside the loop I also reassigned the variable called quality_price to the correct amount. For example, option 1 is luxury which costs 1.15 per square metre so I used this code to create it

if quality_choice == 1:

      print ("per square metre cost £1.15")

      quality_price = 1.15

      choice = "luxury"

My Elif statements are similar but has a few changes:

Elif quality_choice == 2:

      print ("per square metre cost £0.80")

      quality_price = 0.8

      choice = "standard"

All I had to do differently was the amount which is being reassigned and the choice.

Creating the labor charge and the 20% vat was very simple. I just had to save them in separate variables in in float value. I then had to add these to another variable which leads to a subtotal then I was able to add the 20% vat and get my final totals.