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Programming Concepts P1 - Using the **Python Interpreter mode (command line**)

Use screenshot, snapshot, snip… ect to take a snap of your work. Paste answers into this document.

1 You are shopping for clothing at a local store that is having a sale. All items are 25% off. You decide to purchase five items priced at $12.99, $13.99, $25.99, $19, and $69.99. Sales tax is 7%. Use python to figure out the total cost. Write your program below and include a snapshot from python to show your work and answer. \*This does not have to be one continuous program. You can use the different functions you have learned separately.

SALES\_TAX = .07

SALE\_PERCENTAGE = .25

item1 = 12.99 - (12.99 \* SALE\_PERCENTAGE)

item2 = 13.99 - (13.99 \* SALE\_PERCENTAGE)

item3 = 25.99 - (25.99 \* SALE\_PERCENTAGE)

item4 = float(19) - (float(19) \* SALE\_PERCENTAGE) # formating this integer into a floating number

item5 = 69.99 - (69.99 \* SALE\_PERCENTAGE)

pre\_tax\_total = item1 + item2 + item3 + item4 + item5

total\_cost = (pre\_tax\_total \* SALES\_TAX) + pre\_tax\_total

print('Total cost is $', format(total\_cost, '.2f'), sep='')

A screen shot of a computer

Description automatically generated

2 Using python input these phrases, each on their own line. Snapshot your results and insert below.

“Isn’t,” they said.

‘my dog loves to play’

‘”Come over for dinner,” they said’

print('\"Isn\'t,\" they said.')

print('\'my dog loves to play\'')

print('\'\"Come over for dinner,\" they said\'')

A screen shot of a computer

Description automatically generated

3 Using raw strings input this phrase C:\programfiles\user\yourname Insert snapshot of your answer.

print(r'C:\programfiles\user\yourname')

print(r'C:\programfiles\user\sergio')

A screenshot of a cell phone

Description automatically generated

4 Practice typing in a string literal using the words below. Use the tab key. Try it a few different ways to get the hang of it. After you have completed the string literal notice how using the down arrow you can insert a line hit enter and insert another line using the down arrow, effectively re-entering your string literal without typing it second time. This is helpful when typing multiple lines that are only slightly different allowing you to change just a small portion.

Pancakes: How I love them

-with maple syrup (needs to be warm)

-with chocolate chips (Hershey’s is the best)

print("""\

Pancakes: How I love them

-with maple syrup (needs to be warm)

-with chocolate chips (Hershey's is the best)

""")

A screen shot of a computer

Description automatically generated

5 Have the following print out as one line in python with only beginning and ending quotes. Insert snapshot. ‘I went to the store to buy pretzels’ ‘while I was at the store I also bought chips and salsa’ (Make sure it is grammatically correct and properly spaced)

print('\'I went to the store to buy pretzels\' \'while I was at the store I also bought chips and salsa\'')

A close up of a screen

Description automatically generated

6 Index the word programming. Insert snapshot showing index character 1, 5, 8.

word = 'programming'

print(word[1])

print(word[5])

print(word[8])

A picture containing computer, computer

Description automatically generated

7 Index the word programming from the right. Insert snapshot showing index character 1, 5, 8.

word = 'programming'

print(word[-1])

print(word[-5])

print(word[-8])

A picture containing computer, computer

Description automatically generated

8 Slicing allows you to obtain substring. Using the same word programming, input to find the following and snapshot your answers below.

Character from beginning to position 2

Characters from position 4 to the end

Character next to the last

Characters from the second-last and including the end

word = 'programming'

print(word[:2])

print(word[4:])

print(word[-2:-1])

print(word[-2:])

A screen shot of a computer

Description automatically generated

9 Use the function that will return the length of a string for the following 3 words: formatting, syntax, and exponential.

print(len('formatting'))

print(len('syntax'))

print(len('exponential'))

A screen shot of a computer

Description automatically generated

10 Using what you have learned in this lesson, create your own written scenario below and then include a snapshot of python that shows your solution. This can be as elaborate or simple as you want it to be. You must incorporate at least 3 different components practiced.

An application form is looking for a first and last name. It is also looking for a phone number to be inputted as well. After filling out the form, with the appropriate information, the application will print out what the user entered. The form will also splice the area code from the phone number. At the end the form will return a greeting message to the user containing the user’s first, last name and phone number without the area code. It will also thank the user for applying and will display the company’s phone number should the user have any questions.

COMPANY\_NUMBER = 1230987654

first\_name = input('Enter your first name: ')

last\_name = input('Enter your last name: ')

phone\_number = input('Enter phone number including state area code: ')[3:]

print('Hello Applicant\nYou entered: ', first\_name, 'as your first name\nYou entered: ', last\_name, 'as your last name\nThis is your phone number without the state area code numbers:', phone\_number, '\nIf you have any questions please feel free to call us at', COMPANY\_NUMBER)

A picture containing sitting, table, computer, computer

Description automatically generated