PYTHON ASSESSMENT

**INSTRUCTION:**

* Use new notebook for this assessment
* Use markdown to write your name before you start answering any questions
* Write above each of your answers with markdown indicating the question you answer below.
* Write answers to each questions in a single cell.
* Follow python syntax in writing your code.

**VARIABLE & DATA TYPES**

1. 23
2. Create 5 different string, integer, float, tuples data types.
3. Create 3 list data types where the first list contain only strings, the second contain only integer and the third contain mixture of different data types.
4. Create nested list
5. Use all operators to carry out numerical operations
6. Concatenate this two words “Python”, “lovers”
7. What are the rules to follow when naming variables?
8. Write code to check the data types of the following (a) 23, (b)”Hello”, (c)True (d) 57.8,   
   (e) {2,6,7.8,}, (f) [34,6,5,8,0,12], (g) (1,2,3,4)
9. Use escape characters to format the string below nicely

"Roses are red,{newline}Violets are blue,{newline}Python is great,{newline} and so how are you".

username = input("Enter your username: ")

password = input("Enter your password: ")

if (user == "McMaggie" \_\_\_ password == "2024"):

\_\_\_\_"You've logged in"

else:

\_\_\_\_ "You are not eligible"

1. Fix the code above to make sure both username and password are correct before printing “You’ve logged in”
2. my\_list = [1, 2, 3, 4, 'hello', 'where', 'do', 'you', ’go’,[67,’places’,[34,65.5,9,’Nigeria’],’University’],’Righteousness’]

Use indexing to print the following from the above list:

1. ‘where’
2. ‘go’
3. 4
4. ‘places’
5. 9
6. ‘Nigeria’
7. ‘Righteousness’
8. ['append',

'clear',

'copy',

'count',

'extend',

'index',

'insert',

'pop',

'remove',

'reverse',

'sort']

Create a list and use all the above methods

1. Given the nested list

[[10, 11, 12], [13, 14, 15], [16, 17, 18], [19, 20, 21]]

perform the following operations

1. Slice and print the first two sublists

2. Slice and print the last two elements of the second sublist

3. Slice and print the middle element of each sublist

**CONTROL FLOW**

1. Write a code using keyword **input** to collect the age of user

check if the person is 18 years or older

print out you are eligible to drive

if the person is less than 18

print out C’mon you are underaged.

1. Write a **for loop** code to iterate through A-Z and print each letters.
2. Write a code that takes an integer input and prints

- 'Child' if the age is less than 13

- 'Teenager' if the age is between 13 and 19

- 'Adult' if the age is 20 and above.

4. Write a code that checks if a number is divisible by both 3

and 5, If it is, print 'Divisible by both'.

it is only divisible by 3, print 'Divisible by 3'.

it is only divisible by 5, print 'Divisible by 5'.

Otherwise print, 'Not divisble by 3 or 5'

1. Write a code that grades a student

if the student score 90 and above, give the student an "A"

if the student score between 80 and 90, give the student an "B"

if the student score between 70 and 80, give the student an "C"

if the student score between 60 and 70, give the student an "D"

else give the student an 'F'

1. def addition (num1, num2):

return num1 + num2

the above function will return addition of any two number input. Create a function for Subtraction, Mulitiplication, Division of two number.