

PYTHON ASSIGNMENT

MAKE A MOVE TO PYTHON

ASSIGNMENTS



SUBMITTED TO

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TASK-2:
OPERATORS
AND DECISION
MAKING
STATEMENTS

Write a program in Python to perform the following operation:

If a number is divisible by 3 it should print “Consultadd” as a string

If a number is divisible by 5 it should print “c” as a string

If a number is divisible by both 3 and 5 it should print “Consultadd Python Training” as a string.

```
user_input = input("Please enter the number: ")
user_input = int(user_input)

if (user_input % 3 == 0 and user_input % 5 == 0):
    print("Consultadd Python Training")
elif (user_input % 5 == 0):
    print("C")
elif (user_input % 3 == 0):
    print("Consultadd")
```

Output:

```
Please enter the number: 30
Consultadd Python Training
```

Write a program in Python to perform the following operator-based task:

Ask user to choose the following option first:

If User Enter 1 - Addition

If User Enter 2 - Subtraction

If User Enter 3 - Division

If User Enter 4 - Multiplication

If User Enter 5 - Average

Ask user to enter the 2 numbers in a variable for first and second for the first 4 options mentioned above.

Ask user to enter two more numbers as first and second2 for calculating the average as soon as user choose an option 5.

At the end if the answer of any operation is Negative print a statement saying “NEGATIVE”

NOTE: At a time, user can perform one action at a time.

```
option_1 = "Addition"
option_2 = "Subtraction"
option_3 = "Division"
option_4 = "Multiplication"
option_5 = "Average"
print(f"Hello, Please choose from the following operation as required
1. {option_1}
2. {option_2}
3. {option_3}
4. {option_4}
5. {option_5}")
user_input = int(input("Option: "))
print("Thanks for choosing. Please enter two integer values")
val1 = int(input())
val2 = int(input())

if user_input == 1:
    total = val1 + val2
    print(f"Addition of both the numbers is {total}")
    if total < 0:
        print("Added number is Negative ")
    else:
        print("Added number is positive")
elif user_input == 2:
    total = val1 - val2
    print(f"Subtraction of both the numbers is {total}")
    if total < 0:
        print("Subtracted number is Negative ")
    else:
        print("Subtracted number is positive")
```

```
elif user_input == 3:
    total = val1 * val2
    print(f"Multiplication of both the numbers is {total}")
    if total < 0:
        print("Multiplied number is Negative ")
    else:
        print("Multiplied number is positive")
elif user_input == 4:
    total = val1 / val2
    print(f"Division of both the numbers is {total}")
    if total < 0:
        print("Divided number is Negative ")
    else:
        print("Divided number is positive")
else:
    print("Please enter two more values for the average: ")
    val3 = input()
    val4 = input()
    val3 = float(val3)
    val4 = float(val4)
    total = (val1 + val2 + val3 + val4) / 2
    print(f"Average of these numbers is {total} ")
    if total < 0:
        print("Average is negative")
    else:
        print("Average is positive")
```

Output:

Hello, Please choose from the following operation as required

1. Addition
2. Subtraction
3. Division
4. Multiplication

5. Average

Option: 2

Thanks for choosing. Please enter two integer values

-5

2

Thanks for choosing 'Subtraction'

Subtraction of both the numbers is -7

Subtracted number is Negative

Write a program in Python to implement the given flowchart:

```
a = 10
b = 20
c = 30
avg = (a+b+c) / 3
print(f"Average is {avg} ")

if avg > a and avg > b and avg > c:
    print("Average is higher than a,b,c ")
else:
    if avg > a and avg > b:
        print("Average is higher than a,b ")
    elif avg > a and avg > c:
        print("Average is higher than a,c ")
    elif avg > b and avg > c:
        print("Average is higher than b,c ")
    else:
        if avg > a:
            print("Average is just higher than a ")
        elif avg > b:
            print("Average is just higher than b ")
        elif avg > c:
            print("Average is just higher than c ")
```

Output:

Average is 20.0

Average is just higher than a

Write a program in Python to break and continue if the following cases occurs:

If user enters a negative number just break the loop and print “It’s Over”

If user enters a positive number just continue in the loop and print “Good Going

while True:

 user_input = int(input("Please enter any number: "))

if user_input > 0:

 print("Good going! ")

 continue

if user_input < 0:

 print("Its over!")

 break

Output:

Good going!

Please enter any number: 2

Good going!

Please enter any number: 2

Good going!

Please enter any number: -4

Its over!

Write a program in Python which will find all such numbers which are divisible by 7 but are not a multiple of 5, between 2000 and 3200.

```
for values in range(2000 , 3201):  
    if (values % 7 == 0) and (values % 5 != 0):  
        print("All values are: {}".format(values))
```

Output:

All values are: 2002

All values are: 2009 ---- Just a Sample of other values.

What is the output of the following code examples?

```
x=123
```

```
    for i in x:
```

```
        print(i)
```

Output:

TypeError: 'int' object is not iterable

```
i = 0
```

```
while i < 5:
```

```
    print(i)
```

```
    i += 1
```

```
    if i == 3:
```

```
        break
```


else:

print("error")

Output:

0

Error

1

Error

2

count = 0

while True:

print(count)

count += 1

if count >= 5:

break

Output:

0

1

2

3

4

Write a program that prints all the numbers from 0 to 6 except 3 and 6.

Expected output: 0 1 2 4 5

Note: Use 'continue' statement

```
for data in range(0, 7):  
    if data == 3 or data == 6:  
        continue  
    print("Data is {0}".format(data))
```

Output:

Data is 0
Data is 1
Data is 2
Data is 4
Data is 5

Write a program that accepts a string as an input from user and calculate the number of digits and letters.

Expected output: consul12

Letters 6

Digits 2

```
user_input = input("Please enter a string of numbers and characters: ")  
letters = 0  
digits = 0  
for data in user_input:  
    if data.isdigit():  
        digits = digits + 1  
        continue  
    else:  
        letters = letters + 1  
        continue
```

```
print("Digits are: {}".format(digits))
print("Letters are: {}".format(letters))
```

Output:

Please enter a string of numbers and characters: hello123

Digits are: 3

Letters are: 5

Read the two parts of the question below:

Write a program such that it asks users to “guess the lucky number”. If the correct number is guessed the program stops, otherwise it continues forever.

```
lucky_number = 30
user_input = int(input("Try to guess the number in range of 20 -40: "))

while (user_input != lucky_number):
    if user_input < 20 or user_input > 40:
        print("Please enter the number in defined range")
        user_input = int(input())
        continue
    print("Oops , Guess again! ")
    user_input = int(input())
    continue
print("Good work, you guessed the number! ")
```

Output:

Try to guess the number in range of 20 -40: 15

Please enter the number in defined range

11

Please enter the number in defined range

35

Oops , Guess again!

30

Good work, you guessed the number!

Modify the program so that it asks users whether they want to guess again each time. Use two variables, 'number' for the number and 'answer' for the answer to the question whether they want to continue guessing. The program stops if the user guesses the correct number or answers "no". (The program continues as long as a user has not answered "no" and has not guessed the correct number)

```
lucky_number = 30
user_input = int(input("Try to guess the number in range of 20 -40: "))
answer = ""

while (user_input != lucky_number) or (answer != 'N'):
    if user_input < 20 or user_input > 40:
        print("Please enter the number in defined range: between 20 & 40")
        user_input = int(input())
        continue
    elif user_input == lucky_number:
        print("Good work, you guessed the number! ")
        break
    elif user_input != lucky_number:
        print("Oops, Guess again!")
        print("Do you want to continue. Press Y or N: ")
        answer = input()

    if answer == 'Y':
        user_input = int(input("okay, Guess again! "))
        continue
    else:
        print("Okay, It was nice having you playing this game!")
        break
```

Output:

Try to guess the number in range of 20 -40: 3
Please enter the number in defined range: between 20 & 40
35
Oops, Guess again!
Do you want to continue. Press Y or N:
Y
okay, Guess again! 10
Please enter the number in defined range: between 20 & 40
31
Oops, Guess again!
Do you want to continue. Press Y or N:
Y
okay, Guess again! 30
Good work, you guessed the number!

Write a program that asks five times to guess the lucky number. Use a while loop and a counter, such as

```
counter=1  
While counter <= 5:  
    print("Type in the", counter, "number")  
    counter=counter+1
```

The program asks for five guesses (no matter whether the correct number was guessed or not). If the correct number is guessed, the program outputs "Good guess!", otherwise it outputs "Try again!". After the fifth guess it stops and prints "Game over!".

```
import random  
answer = random.randrange(1,10)  
counter = 1  
  
print("Please enter the number between 1 - 10 to guess the 'Lucky  
Number'.\n"  
    "You will get 5 guesses ")  
user_input = int(input("Enter number now: "))
```

```
while (counter != 5):
    if user_input == answer:
        print("Well done you guessed the answer. Try one more time: ")
        answer = random.randrange(1,10)
        user_input = int(input())
        counter = counter + 1
        continue
    else:
        print("Opps , Guess again. Lucky number was: {} \n"
              "Remember your tries!!".format(answer))
        answer = random.randrange(1,10)
        user_input = int(input())
        counter = counter + 1
        continue
print("Game Over! ")
```

Output:

Please enter the number between 1 - 10 to guess the 'Lucky Number'.
You will get 5 guesses
Enter number now: 2
Opps , Guess again. Lucky number was: 9
Remember your tries!!
5
Opps , Guess again. Lucky number was: 4
Remember your tries!!
4
Opps , Guess again. Lucky number was: 9
Remember your tries!!
7
Well done you guessed the answer. Try one more time:
6
Game Over!

In the previous question, insert “break” after the “Good guess!” print statement. “break” will terminate the while loop so that users do not have to continue guessing after they found the number. If the user does not guess the number at all, print “Sorry but that was not very successful”.

```
import random
answer = random.randrange(1,10)
counter = 1

print("Please enter the number between 1 - 10 to guess the 'Lucky
Number'.\n"
      "You will get 5 guesses ")
user_input = int(input("Enter number now: "))

while (counter != 5):
    if user_input == answer:
        print("Well done you guessed the answer ")
        break
    else:
        print("Opps , Guess again. Lucky number was: {} \n"
              "Remember your tries!!".format(answer))
        answer = random.randrange(1,10)
        user_input = int(input())
        counter = counter + 1
        continue
print("Sorry that was not very successful ")
```

Output:

```
Please enter the number between 1 - 10 to guess the 'Lucky Number'.
You will get 5 guesses
Enter number now: 3
Opps , Guess again. Lucky number was: 9
Remember your tries!!
7
Opps , Guess again. Lucky number was: 2
Remember your tries!!
```

4

Opps , Guess again. Lucky number was: 7
Remember your tries!!

9

Opps , Guess again. Lucky number was: 6
Remember your tries!!

3

Sorry that was not very successful