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|  | ‘’’Q.1.  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.’’’ |
|  |  |
|  | num = int(input('Enter the number:')) |
|  |  |
|  | if num % 3 == 0 and num % 5 ==0: |
|  | print('Consultadd Python Training') |
|  | elif num % 3 == 0: |
|  | print('Consultadd') |
|  | elif num % 5 == 0: |
|  | print(“c”)  -------------------------------------------------------------------------- |
|  |  |
|  | ‘’’  Q.2. 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. |
|  | ‘’’ |
|  | print("Select any of the following operation.")  print(“1.ADD\n2.SUBTRACT\n3.DIVISION\n4.MULTIPLY\n5.AVERAGE”) |
|  | c = int(input("Enter choice(1/2/3/4/5): ")) |
|  |  |
|  | num1 = float(input("Enter first number: ")) |
|  | num2 = float(input("Enter second number: ")) |
|  |  |
|  | if c == 1: |
|  | print(num1,"+",num2,"=", num1 + num2) |
|  | elif c == 2: |
|  | print(num1,"-",num2,"=", num1 - num2) |
|  | elif c == 3: |
|  | print(num1,"\*",num2,"=", num1 \* num2) |
|  | elif c == 4: |
|  | print(num1,"/",num2,"=", num1 / num2) |
|  | elif c == 5: |
|  | print("Avg. of", num1, "and", num2, ":", (num1+num2)/2) |
|  | else: |
|  | print("Negative") |
|  |  |
|  | -------------------------------------------------------------------------- |
|  | #. Q3 Write a program in Python to implement the given flowchart: |
|  |  |
|  | a =10 |
|  | b =20 |
|  | c =30 |
|  |  |
|  | avg = ( a + b + c )/3 |
|  | print('The average is', avg) |
|  |  |
|  | if avg > a and avg > b and avg>c: |
|  | print("Average is higher than a,b,c") |
|  | elif 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") |
|  | elif avg > a: |
|  | print("Average is higher than a") |
|  | elif avg > b: |
|  | print("Average is higher than b") |
|  | elif avg > c: |
|  | print("Average is higher than c") |
|  |  |
|  | ’’’Q.4 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”  ‘’’ |
|  |  |
|  | num = int(input('Enter Number : ')) |
|  |  |
|  | while num < 0: |
|  | Break |
|  | print("Its over") |
|  |  |
|  | while num > 0: |
|  | continue |
|  | print("Good Going") |
|  | -------------------------------------------------------------------------- |
|  |  |
|  | ‘’’Q.5 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 i in range(2000,3200): |
|  | if i % 7 == 0 and i % 5 != 0: |
|  | print(i) |
|  | -------------------------------------------------------------------------- |
|  |  |
|  | #Q.6 What is the output of the following code examples? |
|  | 1. |
|  | ‘’’Ans:  File "c:\Users\surfacepro2\Desktop\Python programs\test.py", line 4, in <module>  for i in x:  TypeError: 'int' object is not iterable  ‘’’ |
|  | 2.  ‘’’ |
|  | i = 0 |
|  | while i < 5: |
|  | print(i) |
|  | i += 1 |
|  | if i == 3: |
|  | break |
|  | else: |
|  | print("error") |
|  |  |
|  | output = 0 |
|  | 1 |
|  | 2  ‘’’ |
|  | 3.  ‘’’ |
|  | count = 0 |
|  | while True: |
|  | print(count) |
|  | count += 1 |
|  | if count >= 5: |
|  | break |
|  |  |
| Output: | 0 |
|  | 1 |
|  | 2 |
|  | 3 |
|  | 4 |
|  | ‘’’  -------------------------------------------------------------------------- |
|  | ‘’’ Q.7 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 i in range(6): |
|  | if (i == 3 or i==6): |
|  | Continue |
|  | print(I”\t”) |
|  |  |
|  | ‘’’  --------------------------------------------------------------------------  Q.8. 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 |
|  | ‘’’ |
|  | s = input("Enter a string :") |
|  | a , b = 0, 0 |
|  | for i in s: |
|  | if i.isdigit(): |
|  | a=a+1 |
|  | elif i.isalpha(): |
|  | b=b+1 |
|  | else: |
|  | pass |
|  |  |
|  | print("Letters", b) |
|  | print("Digits", a) |
|  |  |
|  | -------------------------------------------------------------------------- |
|  | ‘’’  Q 9. 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. |
|  | 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) |
|  | ‘’’ |
|  | ’’ Doubt: what is a lucky number? How do we assume a lucky number? According to internet the lucky number is a number in the set of  1, 3, 7, 13. (<https://www.geeksforgeeks.org/lucky-numbers/>) Hence I am assuming this set to be the lucky numbers in this program ’’’ |
|  |  |
|  |  |
|  | mylist = [1,3,7,13]  flag = 1  number = input("Guess the lucky number :")  while(flag==1):      if (number not in mylist):          print("Sorry, not the lucky number")          answer = input("Would you like to try once more? ")          if(answer == 'no'):              break          number = input("Guess the lucky number :")      else:           flag = 0  else:      print('Lucky Number') |
|  | ‘’’ Q.10. Write a program that asks five times to guess the lucky number. Use a while loop and a counter, such as |
|  | ‘’’ |
|  | counter = 1  n = 5 |
|  | while counter <= len(n): |
|  | number = input("Guess the number for the " + str(counter) + "time") |
|  | if number == 5: |
|  | print("Good guess!")  counter += 1 |
|  | else:  print("Try again.") |
|  | else: |
|  | print("Game over") |