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SUBJECT:- CSE 120 PYTHON PROGRAMMING

1) Write a Python code for converting length in cm to km.

CODE:-

```
a = float(input("Enter a value:"))
Convert = a/1000
print(a, "cm =", Convert, "km")
```

OUTPUT:-

Enter a value : 4

4.0 cm = 0.004 km

2) Write a Python program to check whether given number is palindrome or not.

CODE:-

```
num = int(input("Enter a number:"))
reversed_num = 0
check = num
while num > 0:
    digit = num % 10
    reversed_num = reversed_num * 10 + digit
    num // 10
print("Reversed Number:", (reversed_num))
```

```
if (check == reversed_num):
    print("The number you entered is a Palindrome")
else:
    print("Its not an Palindrome")
```

OUTPUT:-

Enter a number: 405

Reversed Number: 504

Its not an Palindrome.

3) Write a menu driven program for the following task

- a) factorial number
- b) prime number
- c) Digit Product
- d) Digit Sum

Code:-

```
num = int(input("Enter a number"))
```

```
select = int(input("1. Factorial number\n 2. Prime\n Number\n 3. Digit Product\n 4. Digit Sum\n"))
```

```
if select == 1:
```

```
    factorial = 1
```

```
    for i in range(1, num+1):
```

```
        factorial *= i
```

```
print("The Factorial of ", num, " is : ", end = "")  
print(factorial)
```

```
elif select == 2:
```

```
    temp = True
```

```
    if num > 1:
```

```
        for i in range(2, num//2 + 1):
```

```
            if num - 1 - i == 0:
```

```
                temp = False
```

```
                break.
```

```
    if temp:
```

```
        print("It is a Prime Number")
```

```
    else:
```

```
        print("It is not a Prime Number")
```

```
else:
```

```
    print("It's not a prime number")
```

```
elif select == 3:
```

```
    Product = 1
```

```
    while num > 0:
```

```
        digit = num % 10
```

```
        product = product * digit.
```

```
        num = num // 10
```

```
    print("Products of digits is", product)
```

elif select == 4:

 sum_val = 0

 while num > 0:

 digit = num % 10

 num = num // 10

 sum_val = sum_val + digit

 print("Sum of Digits is ", sum_val)

OUTPUT

Enter a number 45

1) Factorial number

2) Prime number

3) Digit Product

4) Digit Sum.

3

Product of digits is 20

4) Write a Program to check whether given input is vowel or not

CODE:

```
inp = input("Enter Character")
```

```
if inp in ["a", "e", "i", "o", "u"]:
```

```
    print("It is a Vowel in lower case")
```

```
if inp in ["A", "E", "I", "O", "U"]:
```

```
    print("It is a Vowel in Upper case")
```

```
else:
    print("It is a consonant")
```

OUTPUT :

Enter Character Q

It is a consonant

5) Write a program that prompts the user to enter a string. The program calculates and displays the length of the string until user enters "quit".

HINT : Use While Loop.

CODE :

while True:

```
    inp = input("Enter a String:")
```

```
    if inp == "quit":
```

```
        break
```

```
    n = len(inp)
```

```
    print("The length of the string is", n)
```

OUTPUT :

Enter a String: dhuiasf

The length of the string is 7.

Enter a String: a

The length of the string is 1.

Enter a String: quit.

6) Write a Program to calculate parking charge of a vehicle. Enter the type of Vehicle as character [c for Car , b for Bus , k for Bike] and number of hours , then calculate charge as given below.

Bus - 20 Per Hour

Bike - 10 Per Hour

Car - 15 Per Hour

CODE:

```
time = int(input("Enter numbers of hours : "))

select = input("1. c for Car\n2. b for Bus\n3. k for Bike\n"))

if (select == "c"):
    fare = time * 15
    print("Fare is", fare, "Rs")

elif (select == "b"):
    fare = time * 20
    print("Fare is", fare, "Rs")

elif (select == "k"):
    fare = time * 10
    print("Fare is", fare, "Rs")

else:
    print("Please enter a valid Input")
```

OUTPUT :

Enter no. of number of hours: 5

1. c for Car
2. b for Bus
3. k for Bike

k

Fare is 50 Rs

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SUBJECT : CSE 120 PYTHON PROGRAMMING
CA2 - MODULE 2 ACTIVITY

- 1) Write a program that accepts different number of arguments and returns sum of only the positive values.

CODE:-

num = 0

res = 0

inp = int(input("Enter the no. of digits you want to add:"))

for i in range(inp):

 num = int(input("Enter a number:"))

 if num ≥ 0:

 res += num

print("The Sum of Positive Numbers you entered is", res)

OUTPUT:-

Enter the no. of digits you want to add: 3

Enter a number: 8

Enter a number: -9

Enter a number: 7

The Sum of the numbers you entered is 15

2 Write a program that combines the two lists.

l₁ = []

l₂ = []

res = 0

count = 1

count1 = 1

num = int(input("Enter the no. of elements you want to append
in each list:"))

while count <= num:

 inp1 = input("Enter Any number for List 1 :")

 l₁.extend([inp1])

 count += 1

while count1 <= num:

 inp2 = input("Enter Any number for List 2 :")

 l₂.extend([inp2])

 count1 += 1

res = l₁ + l₂

print(res)

OUTPUT:-

Enter the no. of elements you want to append
in both the lists : 2

Enter Any number for List 1 : 4

Enter Any number for List 2 : 6

Enter Any number for List 2 : 5

Enter Any number for List 2 : 7

[4, 5, 6, 7]

3. Write a program to cube every elements in the tuple

CODE:-

```
tup = ()
num = int(input("Enter the no. of elements: "))
for i in range(1, num+1):
    val = int(input("Enter element 1. d = " + str(i)))
    tup += (val,)
print("tuple = ", tup)
for i in tup:
    print(i, i**3)
```

OUTPUT:-

Enter the no. of elements : 2

enter element 1 = 4

enter element 2 = 5

tuple = (4, 5)

4, 64

5, 125

- 4) Write a program that has list of numbers (both positive and negative). Make a new tuple that has only positive values from the tuple.

CODE :-

```

mytuple = ()
num = int(input("Enter the no. of elements in Tuple: "))
for i in range(1, num+1):
    element = int(input("Enter element 1.d : " + str(i)))
    mytuple += (element, )
print("tuple = ", mytuple)
postuple = ()
for i in mytuple:
    if i > 0:
        postuple += (i, )
print("positive tuple = ", postuple)

```

OUTPUT :-

Enter the number of elements in tuple: 3

Enter element 1: 5

Enter element 2: -8

Enter element 3: 7

tuple = (5, -8, 7)

positive tuple = (5, 7)

- 5) Write a program that creates two dictionaries. One that stores conversion values from meters to cm and the other that stores values from cm to meters.

`sel = int(input("Enter 1 for converting cm to m\n2 for converting m to cm \n"))`

`count = int(input("Enter how many times you want to run this code: "))`

`dict 1 = {}`

`dict 2 = {}`

`for i in range(count):`

`num = int(input("Enter a number to convert :"))`

`if sel == 1:`

`conv1 = num / 100`

`dict1[num] = conv1`

`num += 1`

`elif sel == 2:`

`conv2 = num * 100`

`dict2[num] = conv2`

`num += 1`

`else:`

`print("Please enter a valid Input")`

`if sel == 1:`

`print(dict1)`

`else :`

`print(dict2)`

(6)

OUTPUT:-

Enter

1. For Converting cm to m
2. For Converting m to cm

2

Enter how many times you want to run this code : 2

Enter a number to convert : 45

Enter a number to convert : 56

{45 : 4500 , 56 : 5600}

6) a) Write a program that creates dictionary of cubes of odd numbers in range 1-50.

CODE:-

dict 1 = {}

for i in range (1, 51, 2):

a = i ** 3

dict 1[i] = a

print (dict 1)

OUTPUT:-

{1: 1, 3: 27, 5: 125, 7: 343, ...}

... 43: 79507, 45: 91125, 47: 103823, 49: 117649}

Q6) Write a program to create a list of numbers from the list range from 1-30. Then delete All numbers from the list that are divisible by 3.

```
lst = []
```

```
for i in range(1, 21):
```

```
    lst.append(i)
```

```
print(lst)
```

```
for index, i in enumerate(lst):
```

```
    if(i % 3 == 0):
```

```
        del lst[index]
```

```
print("The list after deletion of elements that are  
divisible by 3 are : ", lst)
```

OUTPUT:-

[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13,
14, 15, 16, 17, 18, 19, 20]

The list after deletion of elements that are divisible
by 3 are : [1, 2, 4, 5, 7, 8, 10, 11, 13, 14, 16, 17, 19, 20]

Q7) Write a program to print the string which has
the vowel in it eg: [python, C, R, ML, JAVA]

Output : python, JAVA.

```
lst = []
res = []
num = int(input("How many elements you want to enter."))
for i in range(1, num + 1):
    var = input("Enter String:")
    lst.append(var.lower())
```

```
for i in lst:
    for j in i:
        if j in ['a', 'e', 'i', 'o', 'u']:
            res.append(i)
        else:
            pass
```

```
print("The final list is", res)
```

OUTPUT:

Enter how many elements you want to enter: 2

Enter string: python

Enter string: C

python

The final list is ['python']

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CAII Module 3 Assignment

DATE: 01/10/2022

1) def rev_val(inp_val):

 out_val = inp_val[::-1]

 return out_val

s = input()

print("Reversing", s, "gives", rev_val(s))

OUTPUT:-

Arjun

Reversing Arjun gives nujrA

2) def upper_lower(inp_val):

 upper_count = 0

 lower_count = 0

 for i in inp_val:

 if i.isupper():

 upper_count += 1

```
elif i.islower():
```

```
    lower_count += 1
```

```
else:
```

```
    pass
```

```
return upper_count, lower_count
```

```
u,l = upper_lower(input("Enter String here:"))
```

```
print("Upper Case Characters:", u)
```

```
print("Lower Case Characters:", l)
```

OUTPUT:-

```
Enter String here: Arijuh
```

```
Upper Case Characters : 1
```

```
Lower Case Characters : 4
```