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Subject : Python

Assignment_5

Ans_1.

```python
# Python code to reverse a string

string = "My name is Aditya"
length = len(string)

print(f"This is the string: '{string}'")
print(f"This is the length of string: {length}")
print("Reverse of the string is: ", end ='')

# Using while loop to print from the end
while length > 0:
    # using length to define which index to print first, as index start from 0
    print( string[length - 1], end='' )
    length -= 1

```

Ans_2.

```python
# Python code to find numbers divisible by a specific number in a range.

lower_range = int(input("Enter the lower range...."))
upper_range = int(input("Enter the upper range...."))
div_num = int(input("enter the number to be divisible by...."))

i = lower_range + 1    # so that starting and ending numeber are not considered
while i < upper_range:
    # if remainder is zero that means particular number is divisible by given number
    if ( i % div_num == 0 ):
        print(i)
    i = i + 1

```

```
PS D:\Python\Assignment 5> python .\Assignment_5_Q2.py
Enter the lower range....5
Enter the upper range....100
enter the number to be divisible by....5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95
PS D:\Python\Assignment 5>
```

Ans_3.

```python
# Python code to calculate area of triangle using Heron's formula

import math    # math module for finding square root
side1 = int(input("Enter the first side: "))
side2 = int(input("Enter the second side: "))
side3 = int(input("Enter the third side: "))

# this is heron's formula for area of triangle
s = ( side1 + side2 + side3 )/2
area = math.sqrt(s*(s-side1)*(s-side2)*(s-side3))

print(f'Area of the triangle: {area}')

```

```
PS D:\Python\Assignment 5> python .\Assignment_5_Q3.py
Enter the first side: 50
Enter the second side: 22
Enter the third side: 70
Area of the triangle: 270.29428406830954
PS D:\Python\Assignment 5>
```

Ans_4.

```python
# Python code to print given pattern of '*'

# Printing * in ascending order
for i in range(1,6) :   # to put numbers 1 to 6 in j's range
    for j in range(0,i) :   # to print * according to i's value
        print('*', end='')
    print()

# Printing * in descending order
for i in range(0,5):
    j=4-i
    while(j>0):
        print('*', end='')
        j=j-1
    print()

```

```
PS D:\Python\Assignment 5> python .\Assignment_5_Q4.py
*
**
***
****
*****
****
***
**
*

PS D:\Python\Assignment 5>
```

Ans_5.

```python
# Python code to print a triangular pattern of alphabet

a = 'ABCDEFGHIJKLMNOPQRSTUVWXYZ'

n = int(input("Enter the number: "))
for i in range( 1, n+1 ):   # Increasing n by 1 as range dosn't include upperlimit
    if len(a) < i:
        a += 1
    for j in range(0,i):
        print(a[j], end='')

    print()

    a = a[i:]
print("\n")
```

```
PS D:\Python\Assignment 5> python .\Assignment_5_Q5.py
Enter the number: 5
A
BC
DEF
GHIJ
KLMNO


PS D:\Python\Assignment 5>
```

Asn_6.

```python
# Python code to print prime number for a user input range

# Taking range from user
lower_range = int(input("Enter the lower range: "))
upper_range = int(input("Enter the upper range: "))

for i in range(lower_range,upper_range):
    flag = 0
    for j in range(2,i):
        if(i % j == 0):
            flag = 1
            break
    if(flag == 0):
        print(i)

```

```
Enter the upper range: 10
1
2
3
5
7
PS D:\Python\Assignment 5>
```

Ans_7.

```python
# Python code to find the number divisible by 7 and 11 between [1,500)

for num in range (1,500):

    # checking for divisibility
    if (num % 7 == 0 and num % 11 == 0):
        print(num)

```

```
PS D:\Python\Assignment 5> python Assignment_5_Q7.py
77
154
231
308
385
462
PS D:\Python\Assignment 5>
```

Ans_8.

```python
# Python code to find odd, even, positive, negative and occurence of each numbers
# in the entered 10 numbers

# creating an empty list
numbs = []

print("Enter 10 Elements to add in a list")
n = 10

# iterating till the range
for i in range(0, n):
    elements = int(input())

    numbs.append(elements) # adding the element to the empty list

print(f"Entered list is: {numbs}")

# Checking for positive numbers
print("Positive numbers in List are: ")
for i in numbs:
    if i > 0:
       print(i, end = "")
print("\n")

# Checking for negative numbers
print("Negative numbers in List are: ")
for i in numbs:
    if i < 0:
        print("\n")
        print(i, end = "")
```

```
# Checking for negative numbers
print("Negative numbers in List are: ")
for i in numbs:
    if i < 0:
        print("\n")
        print(i, end = "")
print("\n")

# Checking for Odd numbers
print("Odd numbers in List are: ")
for i in numbs:
    if i % 2 != 0:
       print(i, end = "")
print("\n")

# Checking for even numbers
print("Even numbers in List are: ")
for i in numbs:
    if i % 2 == 0:
       print(i, end = "")

print("\n")
# Finding Occurence of each number
print('Occurence of each number is: ')
for i in numbs:
    if(type(i) == float):   # so no repetition occurs
        continue
    n=0
    j=0
```

```
46  print("\n")
47  # Finding Occurence of each number
48  print('Occurence of each number is: ')
49  for i in numbs:
50      if(type(i) == float):   # so no repetition occurs
51          continue
52      n=0
53      j=0
54      while j<10:
55          if(numbs[j]==i):
56              n=n+1
57              numbs[j]=1.1   # an decimal no which would be used afterwards to distinguish it from others
58          j=j+1
59      print(f"Frequency of {i} is : {n}")
60  print("\n")
61
```

```
PS D:\python\Assignment 5> python .\Assignment_5_Q8.py
Enter 10 Elements to add in a list
1
2
3
4
5
6
7
8
-1
0
Entered list is: [1, 2, 3, 4, 5, 6, 7, 8, -1, 0]
Positive numbers in List are:
12345678

Negative numbers in List are:


-1

Odd numbers in List are:
1357-1

Even numbers in List are:
24680

Occurence of each number is:
Frequency of 1 is : 1
Frequency of 2 is : 1
Frequency of 3 is : 1
Frequency of 4 is : 1
Frequency of 5 is : 1
Frequency of 6 is : 1
Frequency of 7 is : 1
Frequency of 8 is : 1
Frequency of -1 is : 1
Frequency of 0 is : 1
```

Ans_9.

```python
# Python code to count the number of occurrences of each word in the list

a= ['digvijay','aditya','pulkit','vriti','vriti','saksham','kundu','digvijay']
print(f"\nThe list is : {a}\n")

for i in a:
    g = 0
    n = 0
    if(i=='----'):
        continue

    for j in a:
        if(i == j):
            n += 1
            a[g] = '----'
        g += 1
    print(f"{i} occured {n} times")

```

```
PS D:\Python\Assignment 5> python .\Assignment_5_Q9.py

The list is : ['digvijay', 'aditya', 'pulkit', 'vriti', 'vriti', 'saksham', 'kundu', 'digvijay']

digvijay occured 2 times
aditya occured 1 times
pulkit occured 1 times
vriti occured 2 times
saksham occured 1 times
kundu occured 1 times
PS D:\Python\Assignment 5>
```