Assignment -1
Python Programming

Assignment Date	29 September 2022
Team ID	PNT2022TMID44152
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Student Roll Number	724019104011
Maximum Marks	2 Marks

Question-1:

Write a Python program which accepts the radius of a circle from the user and compute the area.

Solution:

```
from math  import pi
r = float(input ("Input the radius of the circle : "))
print ("The area of the circle with radius " + str(r) + " is: " +
str(pi * r**2))
```

Output:

Question-2:

Write a Python program to create a histogram from a given list of integers.
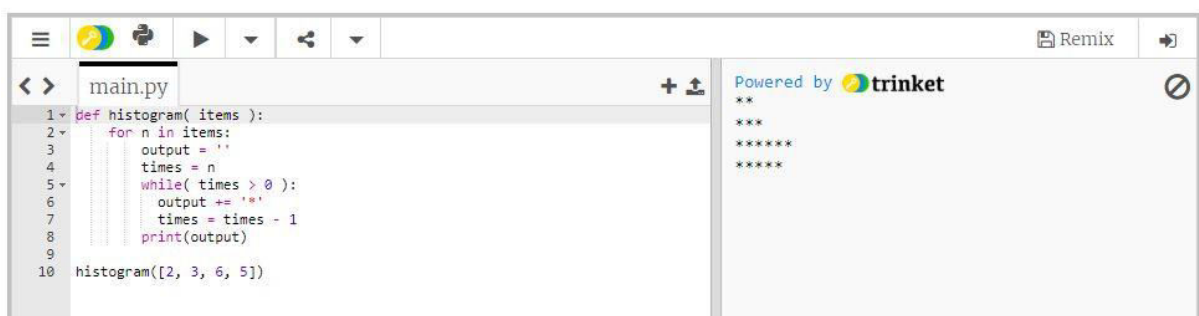
Solution:

```
def histogram( items ):
    for n in items:
        output = ''
        times = n
        while( times > 0 ):
            output += '*'
```

```
        times = times - 1
    print(output)

histogram([2, 3, 6, 5])
```

Output:

Question-3:

Write a Python program to compute the greatest common divisor (GCD) of two positive integers.

Solution:
```python
def gcd(x, y):
    gcd = 1
    if x % y == 0:
        return y
    for k in range(int(y / 2), 0, -1):
        if x % k == 0 and y % k == 0:
            gcd = k
            break
    return gcd
print("GCD of 12 & 17 =",gcd(12, 17))
print("GCD of 4 & 6 =",gcd(4, 6))
print("GCD of 336 & 360 =",gcd(336, 360))
```

Output:

```
GCD of 12 & 17 = 1
GCD of 4 & 6 = 2
GCD of 336 & 360 = 24
```

```python
def gcd(x, y):
    gcd = 1
    if x % y == 0:
        return y
    for k in range(int(y / 2), 0, -1):
        if x % k == 0 and y % k == 0:
            gcd = k
            break
    return gcd
print("GCD of 12 & 17 =",gcd(12, 17))
print("GCD of 4 & 6 =",gcd(4, 6))
print("GCD of 336 & 360 =",gcd(336, 360))
```

Question-4:

Write a Python program to display the first and last colors from the following list.

Solution:

```python
color_list = ["Red","Green","White" ,"Black"]
print( "%s %s"%(color_list[0],color_list[-1]))
```

Output:

```
Red Black
```

```python
color_list = ["Red","Green","White" ,"Black"]
print( "%s %s"%(color_list[0],color_list[-1]))
```
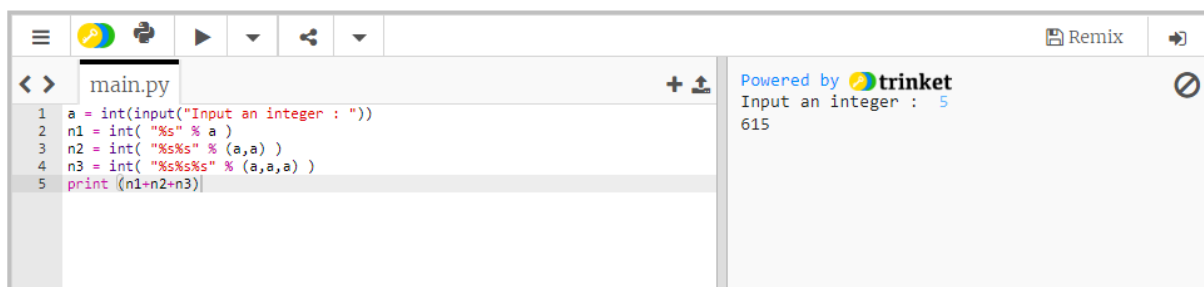
Question-5:

Write a Python program that accepts an integer (n) and computes the value of n+nn+nnn.

Sample of n is 5

Solution:

```
a = int(input("Input an integer : "))
n1 = int( "%s" % a )
n2 = int( "%s%s" % (a,a) )
n3 = int( "%s%s%s" % (a,a,a) )
print (n1+n2+n3)
```

Output: