create a prime and a composite program using loop

```
num = int(input("Enter the number: "))

if num <= 1:
    print(num, "is not a prime or composite")
else:
    prime = True
    for i in range(2, int(num**0.5) + 1):
        if num % i == 0:
            prime = False
            break

    if prime:
        print(num, "is a prime number.")
    else:
        print(num, "is not a prime number.")
```

```
Enter the number: 5
5 is a prime number.
```

4.charlie

```
st = 1
end = 100
for i in range(st,end):
  if i%3 == 0:
    print("Fizz!")
  elif i%5 == 0:
    print("Buzz!")
  elif(i%3== 0 and i%5 ==0):
    print("FizzBuzz!")
  else:
    print(i)
```

```
43
44
Fizz!
```

```
88
89
Fizz!
91
92
Fizz!
94
Buzz!
Fizz!
97
98
Fizz!
```

2.sarah

```python
row = int(input("Enter the number of rows:"))
for i in range(row):
  if i ==0 or i==row-1:
    print('*' * row)
  else:
    print('*' +' '*(row-2) +'*')
```

```
Enter the number of rows:6
******
*    *
*    *
*    *
*    *
******
```

3.manu

```python
num = int(input("Enter the number of characters to input: "))
x = ""
for i in range(num):
    c_input = str(input("Enter alphabet {}: ".format(i+1)))
    x += c_input

print("Entered characters:", x)

todo = input("Enter 'triangle' for right-angled triangle, 'pyramid' for half pyramid, 'full' for full pyramid, or 'diamond' for full dia

if todo == "triangle":
    for i in range(num):
        print(x[0:i+1])
elif todo == "pyramid":
    for i in range(num):
        print(x[0:i+1])
elif todo == "full":
    for i in range(num):
        print(" " * (num-i-1) + x[0]*(2*i+1))
elif todo == "diamond":
    for i in range(num):
        print(" " * (num-i-1) + x[0]*(2*i+1))
    for i in range(num-2, -1, -1):
        print(" " * (num-i-1) + x[0]*(2*i+1))
else:
    print("Enter valid input!")
```

```
Enter the number of characters to input: 5
Enter alphabet 1: a
Enter alphabet 2: p
Enter alphabet 3: p
Enter alphabet 4: l
Enter alphabet 5: e
Entered characters: apple
Enter 'triangle' for right-angled triangle, 'pyramid' for half pyramid, 'full' for full pyramid, or 'diamond' for full diamond: dian
    a
   aaa
  aaaaa
 aaaaaaa
aaaaaaaaa
 aaaaaaa
  aaaaa
   aaa
    a
```