

1. Write a Python Program to Check if a Number is Positive, Negative or Zero?

```
number = int(input("Enter a number: "))
if number > 0:
    print("entered number is positive")
elif number == 0:
    print("entered number is zero")
else:
    print("entered number is negative")
```

```
Enter a number: -7
entered number is negative
```

2. Write a Python Program to Check if a Number is Odd or Even?

```
number = int(input("Enter a number: "))
if number%2 == 0:
    print("Entered number is even")
else:
    print("Entered number is odd")
```

```
Enter a number: 7
Entered number is odd
```

3. Write a Python Program to Check Leap Year?

```
year = int(input("Enter the year: "))
if year%4 ==0:
    print("year is a leap year")
elif year%400 ==0:
    print("year is a leap year")
else:
    print("year is not a leap year")|
```

```
Enter the year: 1992
year is a leap year
```

```
year = int(input("Enter the year: "))
if year%4 ==0:
    print("year is a leap year")
elif year%400 ==0:
    print("year is a leap year")
else:
    print("year is not a leap year")
```

Enter the year: 2000
year is a leap year

```
year = int(input("Enter the year: "))
if year%4 ==0:
    print("year is a leap year")
elif year%400 ==0:
    print("year is a leap year")
else:
    print("year is not a leap year")
```

Enter the year: 1971
year is not a leap year

4. Write a Python Program to Check Prime Number?

```
number = int(input("Enter a number: "))
if number > 1:
    for i in range(2,number):
        if (number%i) == 0:
            print("entered number is not prime")
            break
    else:
        print("entered number is prime")
else:
    print("entered number is not prime")
```

Enter a number: 16
entered number is not prime

```

number = int(input("Enter a number: "))
if number > 1:
    for i in range(2,number):
        if (number%i) == 0:
            print("entered number is not prime")
            break
    else:
        print("entered number is prime")
else:
    print("entered number is not prime")

```

Enter a number: 13
 entered number is prime

```

number = int(input("Enter a number: "))
if number > 1:
    for i in range(2,number):
        if (number%i) == 0:
            print("entered number is not prime")
            break
    else:
        print("entered number is prime")
else:
    print("entered number is not prime")

```

Enter a number: -1
 entered number is not prime

5. Write a Python Program to Print all Prime Numbers in an Interval of 1-10000?

```

for number in range(1, 1000):
    if number > 1:
        for i in range(2, number):
            if (number % i) == 0:
                break
        else:
            print(number, end = ' ')

```

235711131719232931374143475359616771737983899710110310710911312713113713914915115716316717317918119119319719921122322722923323
 924125125726326927127728128329330731131331733133734734935335936737337938338939740140941942143143343944344945746146346747948749
 149950350952152354154755756356957157758759359960160761361761963164164364765365966167367768369170170971972773373974375175776176
 9773787797809811821823827829839853857859863877881883887907911919929937941947953967971977983991997