

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

```
a = int(input())
if a > 0:
    print("Positive")

elif a < 0:
    print ("Negative")
else :
    print ("Zero")
```

```
4
Positive
```

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

```
a = int(input())
if a % 2 == 0:
    print("Even")

else :
    print ("Odd")
```

```
3
Odd
```

3. Write a Python Program to Check Leap Year?

```
a = int(input())
if((a % 400 == 0) or
    (a % 100 != 0) and
    (a % 4 == 0)):
    print("Given Year is a leap Year");

else:
    print ("Given Year is not a leap Year")
```

```
2000
Given Year is a leap Year
```

4. Write a Python Program to Check Prime Number?

```
a = int(input())

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

```
5
5 is a prime number
```

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

```
for a in range(1, 1001):
    if a > 1:
        for i in range(2, a//2+1):
            if a % i == 0:
                break
        else:
            print(a, end=' ')
```

```
2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97 101 103 107 109 113 127 131 137 139 149 151 157 163 167 173 179 181 191 193 197 199 211 2
```