Programming_Assignment3

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

```python
num = float(input("Enter a number: "))
if num > 0:
   print("Positive number")
elif num == 0:
   print("Zero")
else:
   print("Negative number")
```

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

```python
num = int(input("Enter a number: "))

if (num % 2) == 0:

   print("{0} is Even".format(num))

else:

   print("{0} is Odd".format(num))
```

3. **Write a Python Program to Check Leap Year?**

```python
year = 2000

if (year % 4) == 0:

   if (year % 100) == 0:

     if (year % 400) == 0:

        print("{0} is a leap year".format(year))

     else:

        print("{0} is not a leap year".format(year))

   else:

     print("{0} is a leap year".format(year))

else:

   print("{0} is not a leap year".format(year))
```

4. **Write a Python Program to Check Prime Number?**

```python
def PrimeChecker(a):
   # Checking that given number is more than 1
   if a > 1:
     # Iterating over the given number with for loop
     for j in range(2, int(a/2) + 1):
        # If the given number is divisible or not
```

```python
        if (a % j) == 0:
            print(a, "is not a prime number")
            break
    # Else it is a prime number
    else:
        print(a, "is a prime number")
  # If the given number is 1
  else:
    print(a, "is not a prime number")
# Taking an input number from the user
a = int(input("Enter an input number:"))
# Printing result
PrimeChecker(a)
```

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

```python
start = 1
end = 10000

for i in range(start, end+1):
if i>1:
        for j in range(2,i):
                if(i % j==0):
                        break
        else:
                print(i)
```