basic-coding

August 4, 2023

1 Display first N numbers in reverse order

[1]:
```
N = int(input("Enter the value of N"))
for i in range(N,0,-1):
    print(i, end=" ")
```

```
Enter the value of N6
6 5 4 3 2 1
```

2 Sum of First N numbers

[2]:
```
N = int(input("Enter the value of N"))
sum = 0
for i in range(N,0,-1):
    sum = sum + i
print(sum)
```

```
Enter the value of N10
55
```

3 Sum of Numbers in the given range

[3]:
```
N1 = int(input("Enter the value of N1 (greater number)"))
N2 = int(input("Enter the value of N2 (smaller number)"))
sum = 0
for j in range(N1,N2,-1):
    sum = sum + j
print(sum)
```

```
Enter the value of N1 (greater number)15
Enter the value of N2 (smaller number)10
65
```

4 Check if Leap or not

A year has 365.2425 days to satisfy these we have Conditions for Leap year: i) Number should be divisible by 4 ii) Same number should not be divisible by 100 iii) Number should be divisible by 400

[4]:
```
year = int(input("Enter the year in YYYY format to check"))
if(year%400 == 0):
    print(str(year) + " Is a Leap Year")
elif(year%4 == 0 and year%100 != 0):
    print(str(year) + " Is a Leap Year")
else:
    print(str(year) + " Is not a Leap Year")
```

```
Enter the year in YYYY format to check1988
1988 Is a Leap Year
```

[5]:
```
year = int(input("Enter the year in YYYY format to check"))
if(year%400 == 0) or (year%4 == 0 and year%100 != 0):
     print(str(year) + " Is a Leap Year")
else:
    print(str(year) + " Is not a Leap Year")
```

```
Enter the year in YYYY format to check2100
2100 Is not a Leap Year
```

5 Check if the given number is a prime number or not

[6]:
```
num = int(input("Enter any number"))
count = 0
for i in range(2,num):
    if(num % i == 0):
        count = count + 1
if((count == 0) and (num > 2)):
    print(str(num) + " is a prime number")
else:
    print(str(num) + " is not a prime number")
```

```
Enter any number15
15 is not a prime number
```

Time Complexity is O(n)

[7]:
```
num = int(input("Enter any number"))
count = 0
for i in range(2,int(num/2)):
    if(num % i == 0):
        count = count+1
```

```
if((count == 0) and (num > 2)):
    print(str(num) + " is a prime number")
else:
    print(str(num) + " is not a prime number")
```

```
Enter any number7
7 is a prime number
```

[8]:
```
from math import sqrt

isprime = True
num = int(input("Enter any number"))
for i in range(2,int(sqrt(num/2))+1):
    if(num % i == 0):
        isprime = False
        break
if(isprime == True):
    print(str(num) + " is a prime number")
else:
    print(str(num) + " is not a prime number")
```

```
Enter any number97
97 is a prime number
```

[28]:
```
n = int(input("Enter any number "))
def isprime1(n):
    if n <= 1:
        return False
    elif n == 2:
        return True
    elif n%2 == 0:
        return False
    else:
        for i in range(3,int(sqrt(n/2))+1,2):
            if(n % i == 0):
                return False
    return True
if isprime1(n):
    print(str(n) + " is a prime number")
else:
    print(str(n) + " is not a prime number")
```

```
Enter any number 101
101 is a prime number
```

6 Prime Numbers in the given range

[18]:
```
n1 = int(input("Enter any number (Lower bound)"))
n2 = int(input("Enter any number (upper bound)"))
def isprime1(n):
    if n <= 1:
        return False
    elif n == 2:
        return True
    elif n%2 == 0:
        return False
    for i in range(3,int(n/2)+1,2):
        if(n % i == 0):
            return False
    return True
for i in range(n1,n2+1):
    if isprime1(i):
        print(i, end= ",")
```

```
Enter any number (Lower bound)1
Enter any number (upper bound)10
2,3,5,7,
```

7 Sum of digits of a number

[30]:
```
n =int(input("Enter any number - "))
sum = 0
while (n != 0):
    sum += n%10
    n = n // 10
print(sum)
```

```
Enter any number - 11111111
8
```

8 Reverse a number

[32]:
```
n =int(input("Enter any number - "))
reverse = 0
while (n != 0):
    reverse = reverse + n%10
    n = n // 10
    if(n != 0):
        reverse = reverse*10
print(reverse)
```

```
Enter any number - 123456
654321
```

9 Palindrome or not

[38]:
```
n =int(input("Enter any number - "))
num = n
reverse = 0
while (n != 0):
    reverse = reverse + n%10
    n = n // 10
    if(n != 0):
        reverse = reverse*10
print(reverse)
if (num != reverse):
    print("is not a Palindrome")
else:
    print("is Palnidrome")
```

```
Enter any number - 122353221
122353221
is Palnidrome
```

10 Thank you!

[ ]:
```

```