Digits

January 25, 2023

1 Dealing with digits of a given number

[8]:
```
n = int(input()) # 1234
while n > 0: # 0 > 0
    r = n % 10 # r = 1
    print(r) # 1
    n = n // 10 # n = 0
print(n)
```

```
1234
4
3
2
1
0
```

[9]:
```
n = int(input())
s = 0
while n > 0:
    r = n % 10
    s += r
    n = n // 10
print(s)
```

```
1234
10
```

[10]:
```
n = int(input())  # 247 = 4 + 16 + 49 --> 69
s = 0
while n > 0:
    r = n % 10
    s += r**2
    n = n // 10
print(s)
```

```
247
69
```

[11]:
```
n = int(input())  # 124769
edc = odc = 0
while n > 0:
    r = n % 10
    if r%2 == 0:
        edc += 1
    else:
        odc += 1
    n = n // 10
print(edc, odc)
```

```
124769
3 3
```

[12]:
```
n = int(input())  # 124769
eds = ods = 0
while n > 0:
    r = n % 10
    if r%2 == 0:
        eds += r
    else:
        ods += r
    n = n // 10
print(eds, ods)
```

```
124769
12 17
```

2 Reversing a given number

[15]:
```
n = int(input())  # 1247
rev = 0 # 0
while n > 0: # 0 > 0
    r = n % 10 # r = 1
    rev = rev * 10 + r # rev = 7421
    n = n // 10 # n = 0
print(rev)
```

```
1247
7421
```

2.1 Palindrome Number

- number equals to reverse
- 11, 121, 22, 32223, 32323
- 12, 147

[19]:
```python
n = int(input())  # 1247
t = n
rev = 0 # 0
while n > 0: # 0 > 0
    r = n % 10 # r = 1
    rev = rev * 10 + r # rev = 7421
    n = n // 10 # n = 0

if t == rev:
    print('Palindrome')
else:
    print('Not palindrome')
```

```
12121
Palindrome
```