

List comprehension

Def: List comprehension is a short and powerful way to create a new list by applying an expression to each item in an existing sequence.

Syntax:

[expression for item in iterable if condition]

Example:

1. Prime number with single comprehension not with multiple.

```
primes = [n for n in range(2, 51) if not [i for i in range(2, int(n**0.5) + 1) if n % i == 0]]  
print(primes)
```

output:

```
[2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47]
```