

Basics of list comprehension:

[**expression** for **item** in **iterable**]

List comprehension is a concise way in Python to create lists, here is an example:

creating list with a for loop

```
my_list = []  
for item in range(4):  
    square = item**2  
    my_list.append(square)
```

#Outputs: [0, 1, 4, 9]

with list comprehension

```
my_list = [item**2 for item in range(4)]
```

#Outputs: [0, 1, 4, 9]

with condition:

[**expression** for **item** in **iterable** if **condition**]

Adding condition "if item is not equal to zero"

for loop with condition

```
my_list = []  
for i in range(4):  
    if i != 0:  
        square = i**2  
        my_list.append(square)
```

#Outputs: [1, 4, 9]

list comprehension with condition

```
my_list = [i**2 for i in range(4) if i != 0]
```

#Outputs: [1, 4, 9]