

Dictionary comprehension:

{key:value for item in iterable}

Dictionary comprehension is a concise way in Python to create dictionaries, here is an example:

creating dictionary with a for loop

```
sqr_num = {}  
for item in range(4):  
    sqr_num[item] = item**2  
  
#Outputs: {0: 0, 1: 1, 2: 4, 3: 9}
```

with dictionary comprehension

```
sqr_num = {item: item**2 for item in range(4)}  
  
#Outputs: {0: 0, 1: 1, 2: 4, 3: 9}
```

with condition:

{key:value for item in iterable if condition}

Adding condition "if item is not equal to zero"

for loop with condition

```
sqr_num = {}  
for i in range(4):  
    if i != 0:  
        sqr_num[i] = i**2  
  
#Outputs: {1: 1, 2: 4, 3: 9}
```

dictionary comprehension with condition

```
sqr_num = {i: i**2 for i in range(4) if i != 0}  
  
#Outputs: {1: 1, 2: 4, 3: 9}
```