

```
mystring="WELCOME"
```

```
mylist=[i for i in mystring]
```

```
mylist
```

```
↵ ['W', 'E', 'L', 'C', 'O', 'M', 'E']
```

```
# even number
```

```
mylist1=[i for i in range(40) if i%2==0]
```

```
mylist1
```

```
↵ [0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38]
```

```
# odd number
```

```
mylist2=[i for i in range(40) if i%2!=0]
```

```
mylist2
```

```
↵ [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39]
```

```
# calulate square of all numbers
```

```
mylist3=[num**2 for num in range(10)]
```

```
mylist3
```

```
↵ [0, 1, 4, 9, 16, 25, 36, 49, 64, 81]
```

```
mystring='One 1 two 2 three 3 four 4 five 5 six 6 7 8 9'
```

```
mylist4=[i for i in mystring if i.isdigit()]
```

```
mylist4
```

```
↵ ['1', '2', '3', '4', '5', '6', '7', '8', '9']
```

```
mystring='One 1 two 2 three 3 four 4 five 5 six 6789'
mylist5=[i for i in mystring if i.isalpha()]
mylist5
```

```
→ ['O',
    'n',
    'e',
    't',
    'w',
    'o',
    't',
    'h',
    'r',
    'e',
    'e',
    'f',
    'o',
    'u',
    'r',
    'f',
    'i',
    'v',
    'e',
    's',
    'i',
    'x']
```

```
double={i:i*2 for i in range(10)}
double
```

```
→ {0: 0, 1: 2, 2: 4, 3: 6, 4: 8, 5: 10, 6: 12, 7: 14, 8: 16, 9: 18}
```

```
square={i:i**2 for i in range(10)}
square
```

```
→ {0: 0, 1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81}
```

```
key=['one','two','three','four','five']
value=[1,2,3,4,5]
mydict={k:v for k,v in zip(key,value)}
mydict
```

```
→ {'one': 1, 'two': 2, 'three': 3, 'four': 4, 'five': 5}
```

```
mydict1={'a':10,'b':20,'c':30,'d':40,'e':50}
mydict1={k:v/10 for (k,v) in mydict1.items()}
mydict1
```

```
↵ { 'a': 1.0, 'b': 2.0, 'c': 3.0, 'd': 4.0, 'e': 5.0 }
```

```
str1='Natural Language Processing'
mydict2={k:v for (k,v)in enumerate(str1)}
mydict2
```

```
↵ {0: 'N',
  1: 'a',
  2: 't',
  3: 'u',
  4: 'r',
  5: 'a',
  6: 'l',
  7: ' ',
  8: 'L',
  9: 'a',
  10: 'n',
  11: 'g',
  12: 'u',
  13: 'a',
  14: 'g',
  15: 'e',
  16: ' ',
  17: 'p',
  18: 'r',
  19: 'o',
  20: 'c',
  21: 'e',
  22: 's',
  23: 's',
  24: 'i',
  25: 'n',
  26: 'g'}
```

Start coding or [generate](#) with AI.

