TA Session 2: List Comprehension Examples

Example 1

```python
#loop version
my_list = []

for i in range(10):
    my_list.append(i)

#what does my_list look like now?
[0,1,2,3,4,5,6,7,8,9]

#list comprehension version:
my_list = [x for x in range(10)]
```

Example 2

```python
#loop version
my_list = []

for i in range(3,9):
    if i % 3 == 0:
        my_list.append(i)

#what does my_list look like now?
[3,6]

#list comprehension version:
my_list = [i for i in range(3,9) if i % 3 == 0]
```

Example 3

```python
#loop version
my_old_list = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
my_new_list = []

for x in my_old_list:
    if x % 2 == 0:
        my_new_list.append(x + 5)

#what does my_new_list look like now?
[7,9,11,13,15]

#list comprehension version:
my_new_list = [x+5 for x in my_old_list if x % 2 == 0]
```