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\* List comprehension offers a shorter syntax when you want to create the values a new list based on the values of an existing list. (definition)

\* Syntax OF list comprehension.

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```
new_list = [expression for item in iterable if condition == True]
```

Example: `ls = [44, 11, 22, 33, 45]` `new_ls = [a*a for a in ls]`

```
print (new_ls)
```

## Assignment

Q1. Using list Comprehension find out Number Divisible by 7 from 1 to 1000?

```
-> xyz = [a for a in range (7, 1001) if a % 7 == 0]
```

---

```
print(xyz)
```

---

Q2. Count Number of Spaces in string (using List Comprehension)?

```
-> strg = "kjdlmm skdjlmld kldllmkk;l nlmld kdllmdm kdjdmmd mlkmm mlm;m jlkf  
jmklmf "
```

---

```
xyz = [a for a in strg if a.count(" ") ]
```

---

```
print("Number of spaces in string : ",xyz.__len__())
```

---

Q3. Using List Comprehension Convert all Character to upper case in

list

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Of words?

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```
-> Str = [ "jkjlmop", "apple" "custard apple"]
```

---

```
abc = [b.upper() for b in str]
```

---

```
print (abc)
```

---

```
xyz = [a for a in range (7, 1001) if a%7 = 0]
```

---

```
print (xyz).
```

---

**Q4. Using list Comprehension find out Common Number in between two list?**

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```
-> asf = [3,5,88, -9 -10 ~]
```

---

```
san = [2,5,88,6,99 4]
```

---

```
xyz = [a for a in asf if a in San]
```

---

```
print(xyz)
```

---

**Q5. Using List Comprehension find all Number from 12 to 1000 that has 3**

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**in them?**

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```
-> xyz = [a for a in range(1000) if "3" in str(a)]
```

---

```
print (xyz)
```