

List Comprehensions Cheat Sheet

Basically, shortcuts for generating new lists from old lists, or possibly creating new lists from blank lists.

Syntax is `[(x, y) for x in x_list for y in y_list]`

Can use functions (built-in or own) on elements in existing lists to create new lists

Ex: `[round(x) for x in x_list]`

#produces a list of all the former values of x, now rounded. Etc.

Works for strings and for integers, floats, etc.

Can be used to transpose lists via nested comprehensions (one comprehension within another), but this is more easily done using zip function; use syntax:

`zip(*list)` if zipping one list (list of lists); this will transpose (rows to columns and vice versa)

`zip(x_list, y_list)` if mapping lists together (as in dictionaries, though more than two values can be joined as each new item in the new list; each new item in the new list will have sub-items separated by commas, with the whole item denoted by parentheses).