List Comprehension

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AP/IT

- Language feature to support built in function map and operator called list comprehension
- [x**2 for x in range(0,5)]
- [0,1,4,9,16,25]

List Comprehension vs. map

- Python's built-in **ord** returns the ASCII integer code of a character:

```
>>> ord('A')
65
```

- If we want to collect the ASCII codes of all characters in a string, the most straightforward method is using a **for** loop and append the results to a list:

```
>>> result = []
>>> for x in 'Dostoyevsky': result.append(ord(x))
>>> result
[68, 111, 115, 116, 111, 121, 101, 118, 115, 107, 121]
>>>
```

- If we use **map**, we can get the same result with a single function call:

```
>>> result = list(map(ord,'Dostoyevsky'))
>>> result
[68, 111, 115, 116, 111, 121, 101, 118, 115, 107, 121]
>>>
```

Thank you

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