

How to Add a Level to Index in Pandas DataFrame

Before			
	day	temp	humidity
0	1	9	0.890000
1	2	8	0.860000
2	3	6	0.540000
3	4	13	0.730000
4	5	10	0.450000
5	6	15	0.630000
6	7	9	0.950000
7	8	10	0.670000

=>

After					
			day	temp	humidity
2022	year	week	0		
	week_1	0	1	9	0.890000
		1	2	8	0.860000
		2	3	6	0.540000
		3	4	13	0.730000
	week_2	4	5	10	0.450000
		5	6	15	0.630000
		6	7	9	0.950000
		7	8	10	0.670000

In short we can do something like:

(1) Prepend level to Index

```
pd.concat([df], keys=['week_1'], names=['level_name'])
```

(2) Flexible way to add new level

```
old_idx.insert(0, 'level_name', new_ix_level)
```

(3) Use df.set_index to add new level to index

```
df.set_index('level_name', append=True, inplace=True)
```