```
Python 3.7.0 (default, Jun 28 2018, 07:39:16)
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IPython 7.2.0 -- An enhanced Interactive Python.

Restarting kernel...
```

```python
In [1]: import json
   ...: import codecs
   ...: import more_itertools as mt
   ...:
   ...: data = json.load(codecs.open('sample-json.json', 'r',
'utf-8-sig'))
   ...: counts = {}
   ...:
   ...: def collapse(l):
   ...:     list(mt.collapse(l, base_type=dict))
   ...:     label = [d['tags']['label'] for d in mt.collapse(l,
base_type=dict)]
   ...:     shape = [d['type'] for d in mt.collapse(l,
base_type=dict)]
   ...:     for i in range(len(label)):
   ...:         key = label[i]+'_'+shape[i]
   ...:         counts[key] = counts.get(key,0) + 1
   ...:     return counts, set(shape)
   ...:
   ...:
   ...:
   ...: for i in range(len(data)):
   ...:     counts, shape = collapse((data[i]['taggable image']))
   ...:
   ...: print("Frequency of each shape and all labels associated
with the shapes:\n", counts)
   ...: print("Number of unique shape types\n", shape)
Frequency of each shape and all labels associated with the
shapes:
 {'car_rect': 21, 'middle line_line': 35, 'car_polygon': 12,
'van_rect': 6, 'van_polygon': 6, 'bus_polygon': 2, 'car_line': 1,
'wheel_polygon': 10, '_line': 1, 'other_rect': 2,
'other_polygon': 2, 'occlusion_rect': 4, 'truck_rect': 2,
'truck_polygon': 1}
Number of unique shape types
 {'polygon', 'rect', 'line'}
```

In [**2**]: