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```
Explores different `tag` contents.
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```
from collections import defaultdict
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```
from pprint import pprint
```

```
import json
```

```
import xml.etree.cElementTree as ET
```

```
from mapparser import count_tags
```

```
OSMFILE = "data/austin.osm"
```

```
TAG_KEYS = [('highway', 67137), ('name', 41954), ('tiger:county', 35058), ('tiger:cfcc', 35037),  
('tiger:reviewed', 32442), ('tiger:name_base', 28536), ('tiger:tlid', 26725), ('tiger:source', 26710),  
('tiger:name_type', 26254), ('tiger:separated', 24167), ('tiger:zip_left', 21001), ('tiger:zip_right', 19591),  
('building', 12487), ('odbl', 10223), ('oneway', 9506), ('created_by', 8353), ('tiger:upload_uuid', 7913),  
('amenity', 7006), ('service', 5894), ('ref', 3695), ('access', 3620), ('surface', 2886),  
('tiger:name_direction_prefix', 2691), ('tiger:name_base_1', 2638), ('power', 2490), ('public_transport',  
2444), ('landuse', 2090), ('lanes', 2044), ('addr:housenumber', 1949), ('source', 1910), ('addr:street',  
1879), ('name_1', 1804), ('ele', 1736), ('leisure', 1709), ('natural', 1547), ('gnis:feature_id', 1518),  
('bridge', 1475), ('maxspeed', 1380), ('layer', 1319), ('type', 1243), ('gnis:created', 1230),  
('gnis:county_id', 1190), ('gnis:state_id', 1188), ('operator', 1107), ('website', 1085), ('foot', 1062),  
('bicycle', 998), ('addr:postcode', 979), ('shop', 938), ('sport', 915), ('network', 902), ('tiger:name_type_1',  
854), ('waterway', 819), ('old_ref', 806), ('toll', 765), ('bus', 748), ('tiger:zip_left_1', 745), ('note', 739),  
('addr:city', 732), ('sidewalk', 633), ('barrier', 602), ('motor_vehicle', 579), ('cuisine', 554), ('shelter', 552),  
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1), ('name:bat-smg', 1), ('name:gag', 1), ('tiger:Name', 1), ('health_facility:type', 1)]

```

def examine_tags(osmfile, tag_range, item_limit):
    assert len(tag_range) == 2
    # use pre-loaded tag_keys list of tuples, if exists
    if TAG_KEYS:
        tag_keys = TAG_KEYS
    # else call mapparser count_tags method to pull sorted list of top tags
    else:
        _, tag_keys = count_tags(osmfile)
    # list comprehension for producing a list of tag_keys in string format
    tag_keys = [tag_key[0] for tag_key in tag_keys][tag_range[0]:tag_range[1]]
    print "Examining tag keys: {}".format(tag_keys)

    # open osm file
    osm_file = open(osmfile, "r")

    # initialize data with default set data structure
    data = defaultdict(set)

    # iterate through elements
    for _, elem in ET.iterparse(osm_file, events=("start",)):
        # check if the element is a node or way
        if elem.tag == "node" or elem.tag == "way":
            # iterate through children matching `tag`
            for tag in elem.iter("tag"):
                # skip if does not contain key-value pair
                if 'k' not in tag.attrib or 'v' not in tag.attrib:
                    continue
                key = tag.get('k')
                val = tag.get('v')
                # add to set if in tag keys of interest and is below the item limit
                if key in tag_keys and len(data[key]) < item_limit:
                    data[key].add(val)
    return data

def main(tag_range=(0, 10), item_limit=10):
    # call examine_tags function
    tag_data = dict(examine_tags(OSMFILE, tag_range, item_limit))

    # convert sets to JSON-read/writeable format (list)
    for key in tag_data:
        tag_data[key] = list(tag_data[key])

    # write to file
    json.dump(tag_data, open(OSMFILE + '-tag-data.json', 'w'))

    # pretty print
    pprint(tag_data)

```

```
# return data
return tag_data

if __name__ == '__main__':
    main(tag_range=(0, -1), item_limit=20)
```