Tabel 7 Tabel hasil synset teori komutatif dan KBBI.

Kata ke-	Kata	Synset Teori Komutatif dan KBBI
1	ahad	[[['ahad', 'minggu']], [['ahad', 'esa', 'satu', 'tunggal']]]
2	setanggi	[['setanggi']]
3	aborsi	[[['aborsi', 'pengguguran']]]
4	pekan	[[['pasar', 'pekan']], [['minggu', 'pekan']]]
5	lebu	[[['abu', 'debu', 'duli', 'lebu']]]
6	abu	[[['abu', 'abuk', 'debu', 'duli', 'lebu']]]
7	peci	[[['kopiah', 'peci', 'songkok']]]
8	koran	[[['harian', 'koran', 'surat kabar']]]
9	susur	[['susur']]
10	temu	[[['jumpa', 'sua', 'temu']]]
11	suar	[[['pijar', 'suar']], ['suar']]
12	lilin	[[['lilin', 'parafin']]]
13	sakat	[[['benalu', 'parasit', 'sakat']]]
14	satwa	[[['binatang', 'hewan', 'satwa']]]
15	binatang	[[['binatang', 'hewan', 'satwa']]]
16	fiksi	[[['fiksi', 'khayalan']]]
17	lamur	[[['lamur', 'rabun']]]
18	radas	[[['alat', 'radas']]]
19	presentase	[['persentase']]
20	bandrek	[[['bandrek', 'serbat']]]
21	minggu	[[['ahad', 'minggu'], ['minggu', 'pekan']]]
22	esa	[[['ahad', 'esa', 'satu', 'tunggal']]]
23	pengguguran	[[['aborsi', 'pengguguran']]]
24	pasar	[[['pasar', 'pekan']]]
25	rekan	[[['rekan']]]
26	kopiah	[[['kopiah', 'peci', 'songkok']]]
27	songkok	[[['kopiah', 'peci', 'songkok']]]
28	parafin	[[['lilin', 'parafin']]]
29	parasi	[[['benalu', 'parasit', 'pasilan'], ['benalu', 'parasit', 'sakat']]]
30	serbat	[[['bandrek', 'serbat']]]

Tabel 8 Tabel perbedaan hasil synset program dan manual teori komutatif & KBBI.

Kata ke-	Hasil synset program	Hasil synset teori komutatif & KBBI
4. pekan	[[['pasar', 'pekan', 'rekan']], [['minggu', 'pekan']]]	[[['pasar', 'pekan']], [['minggu', 'pekan']]]
5. lebu	[[['abu', 'duli', 'lebu']]]	[[['abu', 'debu', 'duli', 'lebu']]]
6. abu	[[['abu', 'abuk', 'debu'], ['abu', 'debu', 'duli'], ['abu', 'duli', 'lebu']]]	[[['abu', 'abuk', 'debu', 'duli', 'lebu']]]
10. temu	[[['jumpa', 'temu']]]	[[['jumpa', 'sua', 'temu']]]
16. fiksi	[[['fantasi', 'fiksi']]]	[[['fiksi', 'khayalan']]]
18. radas	[[['perkakas', 'radas']]]	[[['alat', 'radas']]]
24 .pasar	[[['pasar', 'pekan', 'rekan']]]	[[['pasar', 'pekan']]]
25 .rekan	[[['pasar', 'pekan', 'rekan']]]	[[['rekan']]]

Lampiran hasil synset 71 item kata dataset Tesaurus

('kata - ', 'abang', ' memiliki synset : ', [[['abang', 'kakak', 'kangmas', 'uda'], ['abang', 'kakang', 'mas'], ['abang', 'kakang', 'uda'], ['abang', 'kangmas', 'mas']]])

('kata - ', 'kakak', ' memiliki synset : ', [[['abang', 'kakak', 'kangmas', 'uda']]])

('kata - ', 'kakang', ' memiliki synset : ', [[['abang', 'kakang', 'mas'], ['abang', 'kakang', 'uda']]])

('kata - ', 'kangmas', ' memiliki synset : ', [[['abang', 'kakak', 'kangmas', 'uda'], ['abang', 'kangmas', 'mas']]])

('kata - ', 'mas', ' memiliki synset : ', [[['abang', 'kakang', 'mas'], ['abang', 'kangmas', 'mas']]])

('kata - ', 'uda', ' memiliki synset : ', [[['abang', 'kakak', 'kangmas', 'uda'], ['abang', 'kakang', 'uda']]])

('kata - ', 'abrasi', ' memiliki synset : ', [[['abrasi', 'erosi', 'pengikisan']]])

('kata - ', 'erosi', ' memiliki synset : ', [[['abrasi', 'erosi', 'pengikisan']]])

('kata - ', 'pengikisan', ' memiliki synset : ', [[['abrasi', 'erosi', 'pengikisan']]])

('kata - ', 'absen', ' memiliki synset : ', [[['absen', 'bolos'], ['absen', 'mangkir']]])

('kata - ', 'bolos', ' memiliki synset : ', [[['absen', 'bolos']]])

('kata - ', 'mangkir', ' memiliki synset : ', [[['absen', 'mangkir'], ['desersi', 'mangkir'], ['lari', 'mangkir'], ['mangkir', 'membolos']]])

('kata - ', 'adidaya', ' memiliki synset : ', [[['adidaya', 'adikuasa']]])

('kata - ', 'adikuasa', ' memiliki synset : ', [[['adidaya', 'adikuasa']]])

('kata - ', 'adipati', ' memiliki synset : ', [['adipati']])

('kata - ', 'bupati', ' memiliki synset : ', [[['bupati', 'tumenggung']]])

('kata - ', 'tumenggung', ' memiliki synset : ', [[['bupati', 'tumenggung']]])

('kata - ', 'adiraja', ' memiliki synset : ', [[['adiraja', 'kaisar', 'maharaja']]])

('kata - ', 'kaisar', ' memiliki synset : ', [[['adiraja', 'kaisar', 'maharaja']]])

('kata - ', 'maharaja', ' memiliki synset : ', [[['adiraja', 'kaisar', 'maharaja']]])

('kata - ', 'aduk', ' memiliki synset : ', [[['aduk', 'baur', 'campur']]])

('kata - ', 'advokasi', ' memiliki synset : ', [[['advokasi', 'pembelaan']]])

('kata - ', 'pembelaan', ' memiliki synset : ', [[['advokasi', 'pembelaan'], ['apologi', 'pembelaan'], ['defensi', 'pembelaan']]])

('kata - ', 'apologi', ' memiliki synset : ', [[['apologi', 'pembelaan']]])

('kata - ', 'pledoi', ' memiliki synset : ', [['pledoi']])

('kata - ', 'akomodasi', ' memiliki synset : ', [[['akomodasi', 'fasilitas']]])

('kata - ', 'aksara', ' memiliki synset : ', [[['abjad', 'aksara', 'huruf'], ['aksara', 'huruf', 'karakter']]])

('kata - ', 'alwah', ' memiliki synset : ', [['alwah']])

('kata - ', 'ampelas', ' memiliki synset : ', [['ampelas']])

('kata - ', 'amunisi', ' memiliki synset : ', [[['amunisi', 'mesiu'], ['amunisi', 'puder']]])

('kata - ', 'anekdot', ' memiliki synset : ', [[['anekdot', 'cerita']]])

('kata - ', 'angsuran', ' memiliki synset : ', [[['angsuran', 'cicilan', 'kredit']]])

('kata - ', 'cicilan', ' memiliki synset : ', [[['angsuran', 'cicilan', 'kredit']]])

('kata - ', 'kredit', ' memiliki synset : ', [[['angsuran', 'cicilan', 'kredit']], ['kredit']])

('kata - ', 'anteng', ' memiliki synset : ', [[['anteng', 'kalem', 'tenang']]])

('kata - ', 'antup', ' memiliki synset : ', [[['antup', 'sengat']]])

('kata - ', 'sengat', ' memiliki synset : ', [[['antup', 'sengat']]])

('kata - ', 'anyelir', ' memiliki synset : ', [['anyelir']])

('kata - ', 'arai', ' memiliki synset : ', [[['arai', 'manggar', 'mayang']]])

('kata - ', 'manggar', ' memiliki synset : ', [[['arai', 'manggar', 'mayang']]])

('kata - ', 'mayang', ' memiliki synset : ', [[['arai', 'manggar', 'mayang']]])

('kata - ', 'aras', ' memiliki synset : ', [['aras']])

('kata - ', 'arit', ' memiliki synset : ', [[['arit', 'sabit']]])

('kata - ', 'pengarsipan', ' memiliki synset : ', [[['dokumentasi', 'pengarsipan']]])

('kata - ', 'arteri', ' memiliki synset : ', [[['arteri', 'nadi']]])

('kata - ', 'nadi', ' memiliki synset : ', [[['arteri', 'nadi']]])

('kata - ', 'pengasahan', ' memiliki synset : ', [['pengasahan']])

('kata - ', 'asam', ' memiliki synset : ', [[['asam', 'masam']]])

('kata - ', 'asan', ' memiliki synset : ', [[['asa', 'asan']]])

('kata - ', 'asap', ' memiliki synset : ', [[['asap', 'gas']]])

('kata - ', 'gas', ' memiliki synset : ', [[['angin', 'gas'], ['asap', 'gas']], ['gas']])

('kata - ', 'atak', ' memiliki synset : ', [['atak']])

('kata - ', 'atensi', ' memiliki synset : ', [[['atensi', 'minat', 'perhatian']]])

('kata - ', 'atlas', ' memiliki synset : ', [[['atlas', 'denah', 'peta']]])

('kata - ', 'peta', ' memiliki synset : ', [[['atlas', 'denah', 'peta']]])

('kata - ', 'atlet', ' memiliki synset : ', [[['atlet', 'olahragawan']]])

('kata - ', 'olahragawan', ' memiliki synset : ', [[['atlet', 'olahragawan']]])

('kata - ', 'atom', ' memiliki synset : ', [[['atom', 'molekul', 'partikel']]])

('kata - ', 'zarah', ' memiliki synset : ', [[['partikel', 'zarah']]])

('kata - ', 'molekul', ' memiliki synset : ', [[['anasir', 'elemen', 'molekul', 'partikel', 'unsur'], ['atom', 'molekul', 'partikel']]])

('kata - ', 'atrium', ' memiliki synset : ', [[['atrium', 'serambi']]])

('kata - ', 'auditor', ' memiliki synset : ', [['auditor']])

('kata - ', 'awan', ' memiliki synset : ', [[['awan', 'gegana', 'mega']]])

('kata - ', 'gegana', ' memiliki synset : ', [[['awan', 'gegana', 'mega'], ['gegana', 'udara']], ['gegana']])

('kata - ', 'bom', ' memiliki synset : ', [['bom']])

('kata - ', 'mega', ' memiliki synset : ', [[['awan', 'gegana', 'mega']]])

('kata - ', 'awi', ' memiliki synset : ', [[['aur', 'awi', 'bambu', 'buluh']]])

('kata - ', 'buluh', ' memiliki synset : ', [[['aur', 'awi', 'bambu', 'buluh']]])

('kata - ', 'ayam', ' memiliki synset : ', [[['ayam', 'mandung']]])

('kata - ', 'ayun', ' memiliki synset : ', [[['ayun', 'goyang']]])

('kata - ', 'aba-aba', ' memiliki synset : ', [[['aba-aba', 'arahan', 'perintah'], ['aba-aba', 'instruksi', 'komando', 'perintah'], ['aba-aba', 'isyarat', 'kode', 'tanda'], ['aba-aba', 'isyarat', 'petunjuk', 'tanda'], ['aba-aba', 'komando', 'perintah', 'suruhan']]])

Lampiran kodingan aplikasi

synsets_extraction.py

```
import itertools
import json
import pandas as pd
import numpy as np

#merubah menjadi dataframe sesuai dengan panjang / jumlah kata
def synsets_to_dataframe(word, thesa):
    #input : kata yang akan dicari dan dataset
    #output : matrik seukuran panjang dataset yang indexnya masih belum terisi
    list_set = []
    for val in thesa[word]:
        word_set = set(val)
        word_set.add(word)
        list_set.append(word_set)
    dt = list_set
    list_dataframe = []

    for ls in dt:
        df = pd.DataFrame(data=False, index=ls, columns=ls)
        np.fill_diagonal(df.values, True)
        list_dataframe.append(df)
    return list_dataframe

#fungsi menambah mengisi index pada dataframe
def check_validation(word, thesa):
    #input : kata yang dicari dan dataset
    #output : matriks yang indexnya telah terisi dengan nilai true atau false
    lines = thesa[word]
    output = []
    matriks_synset = synsets_to_dataframe(word, thesa)
    for matrik in matriks_synset:
        for line in lines:
            for sense in line:
                if thesa.get(sense) is not None:
                    for inner_senses in thesa[sense]:
                        for inner_sense in inner_senses:
                            if sense in matrik.index and inner_sense in
matrik.index:
                                matrik[word][sense] = True
                                matrik[sense][inner_sense] = True
        output.append(matrik)
    return output

#fungsi untuk menghasilkan synsets
def evaluate_synsets(matrik, word):
    #input : matrik dari dataframe sebelumnya dan kata yang akan dicari
    #output : synsets yang sesuai dengan kata yang dicari
    #print(matrik)
    synsets = []
    for i in range(len(matrik.index), 1, -1):
        for k in itertools.combinations(matrik.index, i):
            sub_matrix = matrik.loc[list(k), list(k)]
            #print(k) #calon synset
            #print(sub_matrix) #matriks
            is_synset = all(sub_matrix.all().values)
            if is_synset:
                new_synset = sorted(sub_matrix.all().index)
                similar = False
                for syn in synsets:
                    if set(new_synset) < set(syn):
                        similar = True
                if not similar and word in new_synset:
                    synsets.append(new_synset)
    if len(synsets) == 0:
```

```
        synsets = [word]
    #print(synsets)
    return sorted(synsets)

#fungsi untuk menjalankan fungsi check_validation dan evaluate_synsets
def alt_gen(word, file):
    #input : kata yang akan dicari dan dataset
    #output : hasil berupa synsets
    thesa = json.load(file)
    matrixs = check_validation(word, thesa)
    #print(matrixs)
    sets_list = []
    for matrix in matrixs:
        synset = evaluate_synsets(matrix, word)
        sets_list.append(synset)
    return sets_list
```

main.py

```
from output_validasi_using_matrix import synsets_manual
from output_validasi_kbbi import  synsets_validasi_kbbi
from output_lower import synsets_lower
from synsets_extraction import alt_gen


def f1_score(synsets_program, synset_manual):

    relevant_synset = 0
    retrieved_synsets_program = len(synsets_program)
    retrieved_synsets_manual = len(synset_manual)
    if retrieved_synsets_manual != retrieved_synsets_program:
        raise ValueError('A very specific bad thing happened.')
    count = 0
    for program, manual in zip(synsets_program, synset_manual):
        count += 1
        for x , y in zip(program, manual):
            if x == y:
                relevant_synset += 1
            else:
                print('kata ke - ', count, 'program ', program, 'manual ', manual)
    print()

    # for program, manual in zip(synsets_program, synset_manual):
    #     if program == manual:
    #         relevant_synset += 1
    #     else:
    #         print('synset yang tidak sama ', program)
    # print()

    count_program = 0
    for matriks in synsets_program:
        for synset1 in matriks:
            for syn in synset1:
                count_program += 1
    count_manual = 0
    for matriks2 in synset_manual:
        for synset2 in matriks2:
            for syn2 in synset2:
                count_manual += 1
    print('Jumlah synsets yang sama : ', relevant_synset)
    precision = relevant_synset/count_program
    recall = relevant_synset/count_manual
    f1score = 2 * precision*recall/(precision+recall)
    print('precision    : ', precision * 100)
    print('recall       : ', recall * 100)
    print('F1-Score       : ', f1score * 100)
```

```
if __name__ == '__main__':
    synsets_final = []

    synsets_final.append(alt_gen('ahad', open('datatest/data_test/1.json')))
    synsets_final.append(alt_gen('setanggi', open('datatest/data_test/2.json')))
    synsets_final.append(alt_gen('aborsi', open('datatest/data_test/3.json')))
    synsets_final.append(alt_gen('pekan', open('datatest/data_test/4.json')))
    synsets_final.append(alt_gen('lebu', open('datatest/data_test/5.json')))
    synsets_final.append(alt_gen('abu', open('datatest/data_test/6.json')))
    synsets_final.append(alt_gen('peci', open('datatest/data_test/7.json')))
    synsets_final.append(alt_gen('koran', open('datatest/data_test/8.json')))
    synsets_final.append(alt_gen('susur', open('datatest/data_test/9.json')))
    synsets_final.append(alt_gen('temu', open('datatest/data_test/10.json')))
    synsets_final.append(alt_gen('suar', open('datatest/data_test/11.json')))
    synsets_final.append(alt_gen('lilin', open('datatest/data_test/12.json')))
    synsets_final.append(alt_gen('sakat', open('datatest/data_test/13.json')))
    synsets_final.append(alt_gen('satwa', open('datatest/data_test/14.json')))
    synsets_final.append(alt_gen('binatang', open('datatest/data_test/15.json')))
    synsets_final.append(alt_gen('fiksi', open('datatest/data_test/16.json')))
    synsets_final.append(alt_gen('lamur', open('datatest/data_test/17.json')))
    synsets_final.append(alt_gen('radas', open('datatest/data_test/18.json')))
    synsets_final.append(alt_gen('persentase', open('datatest/data_test/19.json')))
    synsets_final.append(alt_gen('bandrek', open('datatest/data_test/20.json')))
    synsets_final.append(alt_gen('minggu', open('datatest/data_test/21.json')))
    synsets_final.append(alt_gen('esa', open('datatest/data_test/22.json')))
    synsets_final.append(alt_gen('pengguguran',
open('datatest/data_test/23.json')))
    synsets_final.append(alt_gen('pasar', open('datatest/data_test/24.json')))
    synsets_final.append(alt_gen('rekan', open('datatest/data_test/25.json')))
    synsets_final.append(alt_gen('kopiah', open('datatest/data_test/26.json')))
    synsets_final.append(alt_gen('songkok', open('datatest/data_test/27.json')))
    synsets_final.append(alt_gen('parafin', open('datatest/data_test/28.json')))
    synsets_final.append(alt_gen('parasit', open('datatest/data_test/29.json')))
    synsets_final.append(alt_gen('serbat', open('datatest/data_test/30.json')))

    list_kata = ['ahad', 'setanggi', 'aborsi', 'pekan', 'lebu', 'abu', 'peci',
                 'koran', 'susur', 'temu', 'suar', 'lilin', 'sakat', 'satwa',
'binatang',
                 'fiksi', 'lamur', 'radas', 'presentase', 'bandrek', 'minggu',
                 'esa', 'pengguguran', 'pasar', 'rekan', 'kopiah', 'songkok',
'parafin',
                 'parasi', 'serbat']
    count = 0
    print('Synsets hasil program - synset manual(Gold Standard)')
    for x, y in zip(synsets_final, synsets_validasi_kbbi):
        count += 1
        print('Kata ke-',count , list_kata[count-1], '= ' ,x , ' - ', y)

    print()
    print('================================')
    print('Nilai precision recall dan f1 score antara program dengan synset
validasi dengan kbbi')
    print()
    count_program = 0
    for matriks in synsets_final:
        for synset1 in matriks:
            for syn in synset1:
                count_program += 1
    count_manual = 0
    for matriks2 in synsets_validasi_kbbi:
        for synset2 in matriks2:
            for syn2 in synset2:
                count_manual += 1

    print('Jumlah synsets program : ', count_program)
    print('Jumlah synsets manual : ', count_manual)
    f1_score(synsets_final, synsets_validasi_kbbi)
```

```
    print('================================')

    print()
    print('================================')
    print('Nilai precision recall dan f1 score antara manual 1 dengan synset
validasi dengan kbbi')
    print()
    count_program = 0
    for matriks in synsets_manual:
        for synset1 in matriks:
            for syn in synset1:
                count_program += 1
    count_manual = 0
    for matriks2 in synsets_validasi_kbbi:
        for synset2 in matriks2:
            for syn2 in synset2:
                count_manual += 1

    print('Jumlah synsets program : ', count_program)
    print('Jumlah synsets manual : ', count_manual)
    f1_score(synsets_manual, synsets_validasi_kbbi)
    print('================================')

    print()
    print('================================')
    print('Nilai lower bound')
    print()
    count_program = 0
    for matriks in synsets_lower:
        for synset1 in matriks:
            for syn in synset1:
                count_program += 1
    count_manual = 0
    for matriks2 in synsets_validasi_kbbi:
        for synset2 in matriks2:
            for syn2 in synset2:
                count_manual += 1

    print('Jumlah synsets program : ', count_program)
    print('Jumlah synsets manual : ', count_manual)
    f1_score(synsets_lower, synsets_validasi_kbbi)
    print('================================')

    #====================

    list_kata2 = ['abang', 'kakak', 'kakang', 'kangmas', 'mas', 'uda', 'abrasi',
                  'erosi', 'pengikisan', 'absen', 'bolos', 'mangkir', 'adidaya',
'adikuasa',
                  'adipati', 'bupati', 'tumenggung', 'adiraja', 'kaisar',
'maharaja',
                  'aduk', 'advokasi', 'pembelaan', 'apologi', 'pledoi',
'akomodasi', 'aksara',
                  'alwah', 'ampelas', 'amunisi', 'anekdot', 'angsuran', 'cicilan',
'kredit',
                  'anteng', 'antup', 'sengat', 'anyelir', 'arai', 'manggar',
'mayang', 'aras',
                  'arit', 'pengarsipan', 'arteri', 'nadi', 'pengasahan', 'asam',
'asan',
                  'asap', 'gas', 'atak', 'atensi', 'atlas', 'peta', 'atlet',
'olahragawan',
                  'atom', 'zarah', 'molekul', 'atrium', 'auditor', 'awan',
'gegana', 'bom',
                  'mega', 'awi', 'buluh', 'ayam', 'ayun', 'aba-aba']

    synset_dataset = []

    print()
    synset_dataset.append(alt_gen('abang', open('datatest/dataset/1.json')))
```

```
synset_dataset.append(alt_gen('kakak', open('datatest/dataset/2.json')))
synset_dataset.append(alt_gen('kakang', open('datatest/dataset/3.json')))
synset_dataset.append(alt_gen('kangmas', open('datatest/dataset/4.json')))
synset_dataset.append(alt_gen('mas', open('datatest/dataset/5.json')))
synset_dataset.append(alt_gen('uda', open('datatest/dataset/6.json')))
synset_dataset.append(alt_gen('abrasi', open('datatest/dataset/7.json')))
synset_dataset.append(alt_gen('erosi', open('datatest/dataset/8.json')))
synset_dataset.append(alt_gen('pengikisan', open('datatest/dataset/9.json')))
synset_dataset.append(alt_gen('absen', open('datatest/dataset/10.json')))
synset_dataset.append(alt_gen('bolos', open('datatest/dataset/11.json')))
synset_dataset.append(alt_gen('mangkir', open('datatest/dataset/12.json')))
synset_dataset.append(alt_gen('adidaya', open('datatest/dataset/13.json')))
synset_dataset.append(alt_gen('adikuasa', open('datatest/dataset/14.json')))
synset_dataset.append(alt_gen('adipati', open('datatest/dataset/15.json')))
synset_dataset.append(alt_gen('bupati', open('datatest/dataset/16.json')))
synset_dataset.append(alt_gen('tumenggung', open('datatest/dataset/17.json')))
synset_dataset.append(alt_gen('adiraja', open('datatest/dataset/18.json')))
synset_dataset.append(alt_gen('kaisar', open('datatest/dataset/19.json')))
synset_dataset.append(alt_gen('maharaja', open('datatest/dataset/20.json')))
synset_dataset.append(alt_gen('aduk', open('datatest/dataset/21.json')))
synset_dataset.append(alt_gen('advokasi', open('datatest/dataset/22.json')))
synset_dataset.append(alt_gen('pembelaan', open('datatest/dataset/23.json')))
synset_dataset.append(alt_gen('apologi', open('datatest/dataset/24.json')))
synset_dataset.append(alt_gen('pledoi', open('datatest/dataset/25.json')))
synset_dataset.append(alt_gen('akomodasi', open('datatest/dataset/26.json')))
synset_dataset.append(alt_gen('aksara', open('datatest/dataset/27.json')))
synset_dataset.append(alt_gen('alwah', open('datatest/dataset/28.json')))
synset_dataset.append(alt_gen('ampelas', open('datatest/dataset/29.json')))
synset_dataset.append(alt_gen('amunisi', open('datatest/dataset/30.json')))
synset_dataset.append(alt_gen('anekdot', open('datatest/dataset/31.json')))
synset_dataset.append(alt_gen('angsuran', open('datatest/dataset/32.json')))
synset_dataset.append(alt_gen('cicilan', open('datatest/dataset/33.json')))
synset_dataset.append(alt_gen('kredit', open('datatest/dataset/34.json')))
synset_dataset.append(alt_gen('anteng', open('datatest/dataset/35.json')))
synset_dataset.append(alt_gen('antup', open('datatest/dataset/36.json')))
synset_dataset.append(alt_gen('sengat', open('datatest/dataset/37.json')))
synset_dataset.append(alt_gen('anyelir', open('datatest/dataset/38.json')))
synset_dataset.append(alt_gen('arai', open('datatest/dataset/39.json')))
synset_dataset.append(alt_gen('manggar', open('datatest/dataset/40.json')))
synset_dataset.append(alt_gen('mayang', open('datatest/dataset/41.json')))
synset_dataset.append(alt_gen('aras', open('datatest/dataset/42.json')))
synset_dataset.append(alt_gen('arit', open('datatest/dataset/43.json')))
synset_dataset.append(alt_gen('pengarsipan', open('datatest/dataset/44.json')))
synset_dataset.append(alt_gen('arteri', open('datatest/dataset/45.json')))
synset_dataset.append(alt_gen('nadi', open('datatest/dataset/46.json')))
synset_dataset.append(alt_gen('pengasahan', open('datatest/dataset/47.json')))
synset_dataset.append(alt_gen('asam', open('datatest/dataset/48.json')))
synset_dataset.append(alt_gen('asan', open('datatest/dataset/49.json')))
synset_dataset.append(alt_gen('asap', open('datatest/dataset/50.json')))
synset_dataset.append(alt_gen('gas', open('datatest/dataset/51.json')))
synset_dataset.append(alt_gen('atak', open('datatest/dataset/52.json')))
synset_dataset.append(alt_gen('atensi', open('datatest/dataset/53.json')))
synset_dataset.append(alt_gen('atlas', open('datatest/dataset/54.json')))
synset_dataset.append(alt_gen('peta', open('datatest/dataset/55.json')))
synset_dataset.append(alt_gen('atlet', open('datatest/dataset/56.json')))
synset_dataset.append(alt_gen('olahragawan', open('datatest/dataset/57.json')))
synset_dataset.append(alt_gen('atom', open('datatest/dataset/58.json')))
synset_dataset.append(alt_gen('zarah', open('datatest/dataset/59.json')))
synset_dataset.append(alt_gen('molekul', open('datatest/dataset/60.json')))
synset_dataset.append(alt_gen('atrium', open('datatest/dataset/61.json')))
synset_dataset.append(alt_gen('auditor', open('datatest/dataset/62a.json')))
synset_dataset.append(alt_gen('awan', open('datatest/dataset/63.json')))
synset_dataset.append(alt_gen('gegana', open('datatest/dataset/64.json')))
synset_dataset.append(alt_gen('bom', open('datatest/dataset/65.json')))
synset_dataset.append(alt_gen('mega', open('datatest/dataset/66.json')))
synset_dataset.append(alt_gen('awi', open('datatest/dataset/67.json')))
synset_dataset.append(alt_gen('buluh', open('datatest/dataset/68.json')))
synset_dataset.append(alt_gen('ayam', open('datatest/dataset/69.json')))
```

```
synset_dataset.append(alt_gen('ayun', open('datatest/dataset/70.json')))
synset_dataset.append(alt_gen('aba-aba', open('datatest/dataset/71.json')))

f = open('datatest/output.txt', 'w+')
countd = 0
for k in synset_dataset:
    output_synset = ('kata - ', list_kata2[countd], ' memiliki synset : ' ,k)
    f.write(str(output_synset) + '\n')
    countd += 1
f.close()
```