<<<<<<<<<<Calculate New docVecLen>>>>>>>>>>

-----Calculate Update to sumSquares for next Word-----

word = program

docid = 0

-----getWeight-----

word = program

docid = 0

tf = 0

-----getIDF-----

word = program

N = 6

dfi = df[word] = 3

N\_div\_dfi = N / dfi = 2.0

idf = math.log(N / df[word], 2) = math.log(N / dfi, 2) = math.log(N\_div\_dfi, 2)

idf = 1.0

-----back to getWeight-----

idf = 1.0

weight = tf \* idf = 0 \* 1.0 = 0.0

weight = 0.0

-----back to sumSquares-----

weight = 0.0

weight\_sq = weight\*\*2 = 0.0

sumSquares = sumSquares + weight\_sq = 0 + 0.0 =

sumSquares = 0.0

. . .

-----Calculate Update to sumSquares for next Word-----

word = smaller

docid = 0

-----getWeight-----

. . .

-----back to sumSquares-----

weight = 0.0

weight\_sq = weight\*\*2 = 0.0

sumSquares = sumSquares + weight\_sq = 44.8030924171 + 0.0 =

sumSquares = 44.8030924171

docVecLen[docid= 0 ] = math.sqrt(sumSquares) = math.sqrt( 44.8030924171 )

docVecLen[docid= 0 ] = 6.69351121737

<<<<<<<<<<Calculate New docVecLen>>>>>>>>>>

-----Calculate Update to sumSquares for next Word-----

word = program

docid = 1

-----getWeight-----

. . .

-----back to sumSquares-----

weight = 0.0

weight\_sq = weight\*\*2 = 0.0

sumSquares = sumSquares + weight\_sq = 99.3785108204 + 0.0 =

sumSquares = 99.3785108204

-----Calculate Update to sumSquares for next Word-----

word = smaller

docid = 5

-----getWeight-----

. . .

-----back to sumSquares-----

weight = 0.0

weight\_sq = weight\*\*2 = 0.0

sumSquares = sumSquares + weight\_sq = 99.3785108204 + 0.0 =

sumSquares = 99.3785108204

docVecLen[docid= 5 ] = math.sqrt(sumSquares) = math.sqrt( 99.3785108204 )

docVecLen[docid= 5 ] = 9.96887710931

Out[49]:

defaultdict(float,

{0: 6.693511217369937,

1: 7.268079082541437,

2: 7.5703722693813935,

3: 7.642653704746334,

4: 8.30617646255805,

5: 9.968877109305827})

freq\_word\_Qorpus

v

freq\_word\_Corpus

# def getQClean(qCorp):

# return(qClean, qLen, fdistQ, fdistQLen,

# freq\_word\_Q, freq\_word\_Qorpus)

corpusClean = []

corpusLen = []

fdistCorpus = []

fdistCorpusLen = []

freq\_word\_Corpus = []

# def getCorpusClean(corpus)

# return(corpusClean, corpusLen, fdistCorpus, fdistCorpusLen,

# freq\_word\_Corpus)

corpusClean, corpusLen, fdistCorpus, fdistCorpusLen, freq\_word\_Corpus\

= getCorpusClean(corpus)

corpusClean = []

corpusLen = []

fdistCorpus = []

fdistCorpusLen = []

freq\_word\_Corpus = []

# def getPerDocCorp(titles, texts)

# return(perDocCorp, corpus)

files\_stopwords = ['stopwords.txt']

stopwords\_from\_file = set(['secondly', 'all', 'consider', 'whoever', 'four', 'edu', 'go', 'causes', 'seemed', 'rd', 'certainly', 'vs', 'to', 'asking', 'th', 'under', 'sorry', 'sent', 'far', 'every', 'yourselves', 'went', 'did', 'forth', 'try', 'p', 'says', 'yourself', 'likely', 'further', 'even', 'what', 'appear', 'brief', 'goes', 'sup', 'new', 'ever', 'whose', 'respectively', 'never', 'here', 'let', 'others', 'alone', 'along', 'quite', 'k', 'allows', 'howbeit', 'usually', 'whereupon', 'changes', 'thats', 'hither', 'via', 'regardless', 'merely', 'while', 'viz', 'everybody', 'use', 'from', 'would', 'contains', 'two', 'next', 'few', 'therefore', 'taken', 'themselves', 'thru', 'tell', 'more', 'knows', 'becomes', 'hereby', 'herein', 'everywhere', 'particular', 'known', 'obj', 'must', 'me', 'none', 'f', 'this', 'getting', 'ugrave', 'anywhere', 'nine', 'can', 'theirs', 'following', 'my', 'example', 'indicated', 'indicates', 'something', 'want', 'needs', 'rather', 'meanwhile', 'how', 'instead', 'okay', 'tried', 'may', 'after', 'different', 'hereupon', 'such', 'a', 'third', 'whenever', 'maybe', 'appreciate', 'q', 'ones', 'so', 'specifying', 'allow', 'keeps', 'oacute', 'six', 'help', 'ograve', 'indeed', 'over', 'mainly', 'soon', 'course', 'through', 'looks', 'still', 'its', 'before', 'thank', 'thence', 'selves', 'inward', 'actually', 'better', 'willing', 'thanx', 'ours', 'might', 'then', 'non', 'someone', 'somebody', 'thereby', 'uacute', 'they', 'not', 'now', 'nor', 'several', 'hereafter', 'always', 'reasonably', 'whither', 'l', 'each', 'entirely', 'mean', 'everyone', 'doing', 'eg', 'ex', 'agrave', 'our', 'beyond', 'out', 'them', 'furthermore', 'since', 'looking', 're', 'seriously', 'got', 'cause', 'thereupon', 'given', 'like', 'que', 'besides', 'ask', 'anyhow', 'g', 'could', 'tries', 'keep', 'w', 'ltd', 'hence', 'onto', 'think', 'first', 'already', 'seeming', 'thereafter', 'one', 'done', 'another', 'awfully', 'little', 'their', 'accordingly', 'least', 'name', 'anyone', 'indicate', 'too', 'gives', 'iacute', 'mostly', 'behind', 'nobody', 'took', 'immediate', 'regards', 'somewhat', 'off', 'believe', 'herself', 'than', 'specify', 'b', 'unfortunately', 'gotten', 'second', 'i', 'r', 'were', 'toward', 'are', 'and', 'beforehand', 'say', 'unlikely', 'have', 'need', 'seen', 'seem', 'saw', 'any', 'relatively', 'zero', 'thoroughly', 'latter', 'that', 'downwards', 'aside', 'thorough', 'also', 'take', 'which', 'exactly', 'unless', 'shall', 'who', 'egrave', 'most', 'eight', 'but', 'nothing', 'why', 'sub', 'especially', 'noone', 'later', 'm', 'yours', 'definitely', 'normally', 'came', 'saying', 'particularly', 'anyway', 'fifth', 'outside', 'should', 'only', 'going', 'do', 'his', 'above', 'get', 'between', 'overall', 'truly', 'cannot', 'nearly', 'despite', 'during', 'him', 'regarding', 'qv', 'h', 'twice', 'she', 'contain', 'x', 'where', 'thanks', 'ignored', 'namely', 'anyways', 'best', 'wonder', 'said', 'away', 'currently', 'please', 'enough', 'various', 'hopefully', 'probably', 'neither', 'across', 'available', 'we', 'useful', 'nbsp', 'however', 'come', 'both', 'c', 'last', 'many', 'whereafter', 'according', 'against', 'etc', 's', 'became', 'pdf', 'com', 'comes', 'otherwise', 'among', 'presumably', 'afterwards', 'seems', 'whatever', 'hers', 'moreover', 'throughout', 'considering', 'sensible', 'described', 'three', 'been', 'whom', 'much', 'wherein', 'hardly', 'wants', 'corresponding', 'latterly', 'concerning', 'else', 'former', 'those', 'myself', 'novel', 'look', 'these', 'value', 'n', 'will', 'near', 'sometime', 'theres', 'seven', 'almost', 'wherever', 'is', 'thus', 'it', 'cant', 'itself', 'in', 'ie', 'y', 'if', 'containing', 'perhaps', 'insofar', 'same', 'clearly', 'beside', 'when', 'html', 'gets', 'used', 'http', 'see', 'somewhere', 'upon', 'uses', 'kept', 'whereby', 'nevertheless', 'whole', 'well', 'anybody', 'obviously', 'without', 'very', 'the', 'self', 'lest', 'just', 'less', 'being', 'able', 'liked', 'greetings', 'followed', 'yes', 'yet', 'unto', 'had', 'except', 'has', 'ought', 'around', 'possible', 'five', 'know', 'using', 'apart', 'necessary', 'd', 'follows', 'either', 'become', 'towards', 'therein', 'www', 'because', 'old', 'often', 'some', 'somehow', 'sure', 'specified', 'ourselves', 'happens', 'for', 'though', 'per', 'everything', 'does', 'provides', 'tends', 't', 'be', 'igrave', 'nowhere', 'although', 'by', 'on', 'about', 'ok', 'anything', 'oh', 'of', 'v', 'o', 'whence', 'plus', 'consequently', 'or', 'seeing', 'own', 'formerly', 'into', 'within', 'down', 'appropriate', 'right', 'your', 'her', 'endobj', 'there', 'writeln', 'inasmuch', 'inner', 'way', 'was', 'himself', 'elsewhere', 'becoming', 'amongst', 'hi', 'trying', 'with', 'he', 'whether', 'wish', 'j', 'up', 'us', 'until', 'placed', 'below', 'un', 'z', 'gone', 'sometimes', 'associated', 'certain', 'am', 'an', 'as', 'associates', 'at', 'et', 'inc', 'again', 'uucp', 'no', 'whereas', 'nd', 'lately', 'other', 'you', 'really', 'welcome', 'aacute', 'eacute', 'e', 'together', 'having', 'u', 'serious', 'hello', 'once'])

docVecLen[docid] [ 0 ] = 25.4434945366

docVecLen[docid] [ 1 ] = 23.5999235379

docVecLen[docid] [ 2 ] = 4.48475117793

docVecLen[docid] [ 3 ] = 9.68742611515

docVecLen[docid] [ 4 ] = 19.1857314622

perDocCorp[ 0 ] = experimental investigation of the aerodynamics of a wing in a slipstream . an experimental study of a wing in a propeller slipstream was made in order to determine the spanwise distribution of the lift increase due to slipstream at different angles of attack of the wing and at different free stream to slipstream velocity ratios . the results were intended in part as an evaluation basis for different theoretical treatments of this problem . the comparative span loading curves, together with supporting evidence, showed that a substantial part of the lift increment produced by the slipstream was due to a /destalling/ or boundary-layer-control effect . the integrated remaining lift increment, after subtracting this destalling lift, was found to agree well with a potential flow theory . an empirical evaluation of the destalling effects was made for the specific configuration of the experiment .

perDocCorp[ 1 ] = simple shear flow past a flat plate in an incompressible fluid of small viscosity . in the study of high-speed viscous flow past a two-dimensional body it is usually necessary to consider a curved shock wave emitting from the nose or leading edge of the body . consequently, there exists an inviscid rotational flow region between the shock wave and the boundary layer . such a situation arises, for instance, in the study of the hypersonic viscous flow past a flat plate . the situation is somewhat different from prandtl's classical boundary-layer problem . in prandtl's original problem the inviscid free stream outside the boundary layer is irrotational while in a hypersonic boundary-layer problem the inviscid free stream must be considered as rotational . the possible effects of vorticity have been recently discussed by ferri and libby . in the present paper, the simple shear flow past a flat plate in a fluid of small viscosity is investigated . it can be shown that this problem can again be treated by the boundary-layer approximation, the only novel feature being that the free stream has a constant vorticity . the discussion here is restricted to two-dimensional incompressible steady flow .

perDocCorp[ 2 ] = the boundary layer in simple shear flow past a flat plate . the boundary-layer equations are presented for steady incompressible flow with no pressure gradient .

perDocCorp[ 3 ] = approximate solutions of the incompressible laminar boundary layer equations for a plate in shear flow . the two-dimensional steady boundary-layer problem for a flat plate in a shear flow of incompressible fluid is considered . solutions for the boundarylayer thickness, skin friction, and the velocity distribution in the boundary layer are obtained by the karman-pohlhausen technique . comparison with the boundary layer of a uniform flow has also been made to show the effect of vorticity .

perDocCorp[ 4 ] = one-dimensional transient heat conduction into a double-layer slab subjected to a linear heat input for a small time internal . analytic solutions are presented for the transient heat conduction in composite slabs exposed at one surface to a triangular heat rate . this type of heating rate may occur, for example, during aerodynamic heating .

[STOPWORDS: must least exactly accordingly specified]

'flow': {0: 1, 1: 6, 2: 2, 3: 3}

u'simpl': {1: 2, 2: 1}

'made': {0: 2, 3: 1}

'inviscid': {1: 3}

u'situat': {1: 2}

'past': {1: 4, 2: 1}

'slipstream': {0: 5}

u'theoret': {0: 1}

the simple 42 ! situational PAST OF theoretical

cosSimScoresList[docid] [ 0 ] = (0, 0.0008642624400525389)

cosSimScoresList[docid] [ 1 ] = (1, 0.015356698887700096)

cosSimScoresList[docid] [ 2 ] = (2, 0.03550221557090065)

cosSimScoresList[docid] [ 3 ] = (3, 0.030601250115983258)

cosSimScoresList[docid] [ 4 ] = (4, 0.715492452856025)

fdist = nltk.FreqDist(tokens)

fdistCorpus.append(fdist)

j = 0

for k, v in fdist.items():

freq\_word.append([k, v])

j += 1

wordlist = pd.DataFrame(freq\_word)

wordlistSorted = wordlist.sort\_values(by=[1, 0],

ascending=[False, True])

freq\_word\_Corpus.append(wordlistSorted)

fdistCorpus[ 0 ] = <FreqDist with 537 samples and 1754 outcomes>

fdistCorpus = [FreqDist({u'number': 42, 'shock': 35, 'mach': 30, 'layer': 27, u'cone': 23, u'thi': 23, 'heat': 23, u'result': 21, u'boundari': 21, 'transfer': 21, ...})]

freq\_word\_Corpus[ 0 ] =

0 1

215 number 42

27 shock 35

262 mach 30

378 layer 27

381 cone 23

.. ... ..

485 width 1

146 wind 1

246 womersley 1

98 work 1

75 zerolift 1

[537 rows x 2 columns]

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

print('Q1 = what investigations have been made of the wave system created \

by a static pressure distribution over a liquid surface .')

qfdist = nltk.FreqDist(tokens)

qfdist = <FreqDist with 10 samples and 10 outcomes>

type(qfdist) = <class 'nltk.probability.FreqDist'>

fdistQ.append(qfdist)

for k, v in qfdist.items():

freq\_word\_Q.append([k, v])

qwordlist = pd.DataFrame(freq\_word\_Q)

qwordlistSorted = qwordlist.sort\_values(by=[1, 0],

ascending=[False, True])

freq\_word\_Qorpus.append(qwordlistSorted)

fdistQ[ 0 ] = <FreqDist with 10 samples and 10 outcomes>

type(fdistQ) = <type 'list'>

type(freq\_word\_Q) = <type 'list'>

type(freq\_word\_Qorpus) = <type 'list'>

qfdist.items() =

[(u'surfac', 1), (u'investig', 1), (u'pressur', 1), (u'distribut', 1), (u'creat', 1), ('liquid', 1), ('system', 1), ('wave', 1), ('made', 1), ('static', 1)]

fdistQ = [FreqDist({u'surfac': 1, u'investig': 1, u'pressur': 1, u'distribut': 1, u'creat': 1, 'liquid': 1, 'system': 1, 'wave': 1, 'made': 1, 'static': 1})]

freq\_word\_Q[] = [[u'surfac', 1], [u'investig', 1], [u'pressur', 1], [u'distribut', 1], [u'creat', 1], ['liquid', 1], ['system', 1], ['wave', 1], ['made', 1], ['static', 1]]

freq\_word\_Qorpus =

[ 0 1

4 creat 1

3 distribut 1

1 investig 1

5 liquid 1

8 made 1

2 pressur 1

9 static 1

0 surfac 1

6 system 1

7 wave 1]

qVecLen = 6.08605312128

docVecLen[docid] [ 0 ] = 26.7507230244

docVecLen[docid] [ 1 ] = 34.1545563329

docVecLen[docid] [ 2 ] = 68.4290435455

docVecLen[docid] [ 3 ] = 87.8088197341

docVecLen[docid] [ 4 ] = 21.6861853329

docVecLen[docid] [ 5 ] = 26.7885929581

docVecLen[docid] [ 6 ] = 54.211259855

docVecLen[docid] [ 7 ] = 54.630908408

docVecLen[docid] [ 8 ] = 62.722476672

docVecLen[docid] [ 9 ] = 107.077296831

docVecLen[docid] [ 10 ] = 14.1664620439

docVecLen[docid] [ 11 ] = 27.1674901939

docVecLen[docid] [ 12 ] = 19.4388560919

docVecLen[docid] [ 13 ] = 51.1326704774

docVecLen[docid] [ 14 ] = 31.3205407023

cosSimScoresList[docid] [ 0 ] = (2, 0.04095691943337453)

cosSimScoresList[docid] [ 1 ] = (3, 0.04613598553473763)

cosSimScoresList[docid] [ 2 ] = (6, 0.21776338825235655)

cosSimScoresList[docid] [ 3 ] = (7, 0.022128158952545204)

cosSimScoresList[docid] [ 4 ] = (8, 0.06800215269844809)

cosSimScoresList[docid] [ 5 ] = (9, 0.12306638226304087)

cosSimScoresList[docid] [ 6 ] = (10, 0.05619730685326377)

cosSimScoresList[docid] [ 7 ] = (12, 0.010219089556177799)

cosSimScoresList[docid] [ 8 ] = (13, 0.03144180818099162)

cosSimScoresList[docid] [ 9 ] = (14, 0.0063424004445207394)

q\_tuple\_words = (u'surfac', u'investig', u'pressur', u'distribut', u'creat', 'liquid', 'system', 'wave', 'made', 'static')

q\_tuple\_freq\_i = (1, 1, 1, 1, 1, 1, 1, 1, 1, 1)

post\_word\_keys = [set([8, 9, 6]), set([3, 6, 7, 9, 10, 12, 14]), set([9, 3, 6]), set([3, 13, 6, 7]), set([]), set([]), set([]), set([8, 9, 2, 10]), set([8, 9, 2, 13, 7]), set([6])]

u'surfac' 🡪 u'surfac': {8: 3, 9: 7, 6: 2},

u'investig', 🡪 u'investig': {3: 1, 6: 2, 7: 1, 9: 4, 10: 1, 12: 1, 14: 1},

u'pressur', 🡪 u'pressur': {9: 2, 3: 3, 6: 4},

u'distribut', 🡪 u'distribut': {3: 2, 13: 2, 6: 6, 7: 1},

u'creat', 🡪

'liquid', 🡪

'system', 🡪

'wave', 🡪 'wave': {8: 2, 9: 6, 2: 4, 10: 1},

'made', 🡪 'made': {8: 1, 9: 2, 2: 1, 13: 1, 7: 1},

'static') 🡪 'static': {6: 1},

perDocCorpClean[ 2 ] = ['effect', 'shallow', 'water', 'wave', u'resist', u'gener', u'charact', u'experiment', u'result', u'deal', 'effect', 'shallow', 'water', 'ship', u'resist', u'state', u'briefli', u'follow', 'low', u'veloc', u'resist', 'shallow', 'water', 'greater', 'deep', 'water', 'speed', u'excess', u'appreci', u'vari', 'type', 'vessel', 'speed', u'increas', u'excess', u'resist', u'increas', 'maximum', u'critic', u'veloc', u'diminish', u'increas', 'speed', u'resist', 'shallow', 'water', u'ultim', u'becom', u'remain', 'deep', 'water', 'speed', 'maximum', 'effect', u'pronounc', u'shallow', 'water', u'detail', u'refer', 'refer', 'standard', u'treatis', u'quotat', 'made', 'regard', u'critic', u'veloc', u'thi', 'maximum', 'speed', u'trochoid', 'wave', u'travel', u'thi', 'speed', 'water', 'depth', u'time', 'long', 'vessel', 'time', u'suppos', 'speed', 'maximum', u'increas', u'resist', 'wave', u'translat', u'thi', u'howev', u'hold', u'onli', 'water', 'depth', 'greater', u'depth', 'speed', 'wave', u'translat', u'rapidli', u'becom', 'greater', 'speed', 'maximum', u'increas', u'resist', 'recent', u'analysi', 'data', 'weitbrecht', u'express', 'similar', u'conclus', u'state', 'depth', 'water', u'critic', u'veloc', u'critic', u'veloc', u'doe', u'vari', u'squar', 'root', u'correspond', 'depth']

print('fdistPerDoc[ 2 ] = ', fdistPerDoc[ 2 ])

fdistPerDoc[ 2 ] = <FreqDist with 62 samples and 126 outcomes>

fdistPerDoc[ 2 ]

FreqDist({'water': 10, 'speed': 9, u'resist': 7, 'depth': 5, 'shallow': 5, u'increas': 5, u'veloc': 5, 'maximum': 5, u'critic': 4, 'wave': 4, ...})

len(doc156words) = 62

doc156words =

{u'deal': 1, 'wave': 4, 'deep': 2, 'maximum': 5, u'resist': 7, 'shallow': 5, u'critic': 4, u'result': 1, 'vessel': 2, u'follow': 1, 'ship': 1, u'charact': 1, 'speed': 9, u'appreci': 1, u'ultim': 1, u'becom': 2, u'squar': 1, u'pronounc': 1, u'vari': 2, u'quotat': 1, u'detail': 1, 'long': 1, u'state': 2, u'experiment': 1, u'suppos': 1, 'low': 1, u'remain': 1, u'rapidli': 1, u'treatis': 1, 'type': 1, u'refer': 2, u'analysi': 1, 'regard': 1, 'greater': 3, u'gener': 1, u'express': 1, u'onli': 1, 'effect': 3, 'water': 10, u'briefli': 1, u'translat': 2, u'excess': 2, u'increas': 5, u'diminish': 1, u'hold': 1, 'data': 1, u'conclus': 1, 'recent': 1, 'made': 1, 'weitbrecht': 1, 'standard': 1, 'similar': 1, u'howev': 1, u'correspond': 1, u'doe': 1, 'depth': 5, u'trochoid': 1, u'thi': 3, u'time': 2, 'root': 1, u'veloc': 5, u'travel': 1}

postings =

defaultdict(<type 'dict'>, {u'represent': {6: 1}, 'concept': {5: 1}, u'entropi': {7: 1}, u'foreknowledg': {6: 1}, 'eckert': {5: 1}, u'correl': {12: 1}, u'ellipt': {1: 1, 3: 8}, u'follow': {2: 1}, u'edg': {8: 7, 13: 3}, u'millisecond': {9: 2}, u'depend': {12: 1}, u'antisymmetr': {4: 1}, u'intermedi': {3: 1}, 'tail': {9: 2}, u'program': {0: 1}, 'fay': {11: 1}, 'downstream': {8: 4, 1: 1}, u'asymptot': {0: 1}, 'wave': {8: 2, 9: 6, 2: 4, 10: 1}, u'volum': {3: 1}, 'upstream': {0: 2}, u'veri': {0: 1, 1: 1, 9: 1}, u'stiffen': {13: 6, 14: 5}, u'disturb': {9: 6}, 'weitbrecht': {2: 1}, u'stiff': {14: 2}, u'aerothermodynam': {7: 1}, 'shock': {5: 2, 7: 2, 8: 2, 9: 24, 10: 2, 11: 2, 12: 1}, u'list': {9: 1}, u'iter': {0: 1}, u'trochoid': {2: 1}, u'hemispher': {12: 1, 6: 5}, 'small': {9: 1, 3: 1}, u'customari': {11: 1}, u'dimens': {13: 1}, 'upper': {4: 1}, u'stagnat': {11: 2, 12: 1, 5: 3, 6: 1}, 'prandtl': {6: 1}, u'direct': {8: 1}, 'past': {1: 1}, 'rate': {8: 1, 11: 2, 6: 3, 7: 3}, u'pressur': {9: 2, 3: 3, 6: 4}, 'rectangular': {4: 2, 13: 3}, u'compar': {0: 1, 7: 1}, u'neg': {6: 1}, u'section': {9: 1, 3: 2}, 'uniform': {9: 2, 14: 1}, u'experiment': {2: 1, 3: 2, 10: 1, 6: 1, 7: 2}, 'cheng': {12: 1, 7: 1}, u'conduct': {7: 1}, u'techniqu': {9: 1}, u'symmetr': {4: 1}, 'method': {0: 4, 1: 2, 4: 1, 6: 1, 8: 1}, u'movement': {8: 4}, u'defici': {9: 1}, u'gener': {1: 1, 2: 1, 3: 1, 7: 1}, 'water': {2: 10}, u'hightemperatur': {9: 1}, u'modif': {3: 1}, u'excess': {2: 2}, u'becom': {2: 2, 6: 1}, 'interpret': {5: 1}, u'shift': {3: 1}, 'larger': {13: 1, 7: 1}, u'observ': {8: 1}, 'amount': {8: 1}, u'studi': {3: 2, 7: 1}, 'narrow': {9: 1}, u'magnitud': {8: 1, 13: 1}, u'believ': {6: 1}, u'diamet': {6: 1}, 'depart': {9: 1}, u'appli': {1: 2, 11: 1}, u'approxim': {0: 1, 9: 1, 11: 1, 5: 2, 6: 1}, u'linearli': {13: 1}, 'zerolift': {3: 1}, 'establish': {5: 1}, 'unit': {12: 1}, u'describ': {8: 1, 5: 1}, 'distinct': {3: 1}, u'process': {0: 1, 9: 2}, u'strike': {1: 1, 9: 1}, u'suppos': {2: 1}, 'type': {2: 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cosSimScoresList[docid] [ 2 ] = (3, 0.0337335290517857)

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cosSimScoresList[docid] [ 4 ] = (6, 0.18992042873343312)

cosSimScoresList[docid] [ 5 ] = (7, 0.20718006491222904)

cosSimScoresList[docid] [ 6 ] = (8, 0.14865817476885393)

cosSimScoresList[docid] [ 7 ] = (9, 0.0695452886782979)

cosSimScoresList[docid] [ 8 ] = (10, 0.06108409520300385)

cosSimScoresList[docid] [ 9 ] = (11, 0.2027888614874796)

cosSimScoresList[docid] [ 10 ] = (12, 0.31599128224987927)

cosSimScoresList[docid] [ 11 ] = (14, 0.01212843255205168)

1) "The quick brown fox jumps

over the lazy dog = all letters in the English language " "The popular fox jumps over the dog and the Python and the cat",

2) "The excellent fox with its’ Java and HTML development is very clever and quick and

the dog is slow and lazy",.

3) "The smaller cat is smarter than the fox

and her name is Ruby and is with the program and has her site on a web and Data Science" ,

4) "excellent programming language!?!?" "Python is an excellent and quick programming language and

Python programs are smaller than Java programs and not slow or lazy"

5) "HTML and Ruby are other programming languages

for Web Site development said the clever fox but not the cat",

6) "Python and Java are very popular and smart programming

languages for Data Science and are also not for brown jumping dogs",

Q: quick brown jumping lazy dog Python slow excellent JAVA popular 42 #$@ the OF must least exactly accordingly specified