Quiz 2

1. Given three DataFrame df1,df2 and df, please choose one operation below which can generate df by using df1 and df2.

```
>>> df1
                   >>> df2
     lkey value
                        rkey value
                        foo
                                   5
0
     foo
                1
                2
                   1
                        bar
                                   6
1
     bar
                   2
                        baz
                                   7
                3
2
    baz
                                   8
                   3
                        foo
3
     foo
  lkey
        value left rkey
                             value right
0
   foo
                    1
                       foo
1
   foo
                    1
                                         8
                       foo
2
   foo
                    5
                       foo
                                         5
                    5
3
                                         8
   foo
                       foo
                    2
4
                                         6
   bar
                       bar
5
   baz
                    3
                       baz
```

	df1.merge(df2, left_on='lkey', right_on='rkey')
	df2.merge(df1, left_on='lkey', right_on='rkey')
•	<pre>df1.merge(df2, left_on='lkey', right_on='rkey', suffixes=('_left', '_right'))</pre>
	df2.merge(df1, left_on='lkey', right_on='rkey', suffixes=('_left', '_right'))
	<pre>df1.merge(df2, left_on='lkey', right_on='rkey', suffixes=(False, False))</pre>
	df2.merge(df1, left_on='lkey', right_on='rkey', suffixes=(True, False))

2.

Given a DataFrame, apply the z-score normalization

In [3]: df

Out[3]:

a b c d e

0 1 4 7 8 7

1 2 5 8 8 3

2 3 6 9 8 2

.

•		а	b	С	d	е
	0	-1.224745	-1.224745	-1.224745	NaN	1.38873
	1	0.000000	0.000000	0.000000	NaN	-0.46291
	2	1.224745	1.224745	1.224745	NaN	-0.92582
		а	b)	c d	е
	0	-1.224745	-1.224745	-1.22474	15 8	1.38873
	1	0.000000	0.000000	0.00000	00 8	-0.46291
	2	1.224745	1.224745	1.22474	15 8	-0.92582
		a	h		с d	Δ.
		а	b		c d	е
	0	-1.224745	-1.224745			e 1.38873
	0			-1.22474	5 8	
		-1.224745 2.000000	-1.224745	-1.22474 8.00000	5 8	1.38873
	1	-1.224745 2.000000	-1.224745 5.000000	-1.22474 8.00000	5 8	1.38873 -0.46291
0	1	-1.224745 2.000000	-1.224745 5.000000	-1.22474 8.00000	5 8 0 8 5 8	1.38873 -0.46291 -0.92582
0	1 2	-1.224745 2.000000 1.224745	-1.224745 5.000000 1.224745	-1.22474 8.00000 1.22474	5 8 0 8 5 8	1.38873 -0.46291 -0.92582 e
	1 2	-1.224745 2.000000 1.224745 a	-1.224745 5.000000 1.224745 b	-1.22474 8.00000 1.22474 c	5 8 0 8 5 8 d	1.38873 -0.46291 -0.92582 e 1.38873
	1 2	-1.224745 2.000000 1.224745 a -1.224745	-1.224745 5.000000 1.224745 b -1.224745	-1.22474 8.00000 1.22474 c -1.224745	5 8 0 8 5 8 d NaN	1.38873 -0.46291 -0.92582 e 1.38873 -0.46291

3.

For text content standardization, the correct order should be:

Tokenization, Stemming, Lemmatization

0	Tokenization, Lemmatization, Stemming
0	Here is bug from WebCMS, don't choose me.
•	None of Above
0	Both a and b

4. Which kind of data can be considered as dirty data?

0	Incomplete data
0	Duplicate data
0	Inconsistent data
•	All of above