

Reading File

```
In [287... import csv
import time
import pandas as pd
import itertools
```

```
In [288... def load_data(filename):
    full_transaction_list= []
    with open(filename, encoding = 'utf-8-sig') as data:
        transaction_data = csv.reader(data, delimiter = ',')
        for row in transaction_data:
            filtered_rows = [value for value in row if value != '']
            full_transaction_list.append(filtered_rows)
    return full_transaction_list
```

```
In [289... #Asking the user to input the file
new_list = load_data(input('please enter file name\n'))

please enter file name
Transactions_1.csv
```

Asking user for min support and confidence

```
In [290... try:
    user_input_minsupport =int(input('Please enter the minimum support value
    user_input_minConfidence = int(input('\nPlease enter the min confidence
except:
    if user_input_minsupport == int(user_input_minsupport) or user_input_min
        print('please enter a numerical value')
```

Please enter the minimum support value in percentage ex: 25 is 25%:

25

Please enter the min confidence value n percentage ex: 50 is 50%:

70

Transaction 1

Apriori Algorithm

```
In [291... start_time = time.time()

#function to find all the unique values with their counts
def Uniquevalues(Transactions):
    unique_items = {}
    for rows in Transactions:
        for items in rows:
            if items not in unique_items:
                unique_items[items] = 1
            else:
                unique_items[items] = unique_items[items] + 1
    uniqueitemlist = []
    for value in unique_items:
        Valuelist = []
        Valuelist.append(value)
        uniqueitemlist.append(Valuelist)
        uniqueitemlist.append(unique_items[value])
    return uniqueitemlist
```

```
In [292... One_UniqueItems = Uniquevalues(new_list)
print('These are the unique items for Transaction 1:\n\n', One_UniqueItems)
```

These are the unique items for Transaction 1:

```
[[ 'A Beginner's Guide'], 11, ['Java: The Complete Reference'], 10, ['Java For Dummies'], 13, ['Android Programming: The Big Nerd Ranch'], 13, ['Head First Java 2nd Edition'], 5, ['Head First Java 2nd Edition'], 3, ['Beginning Programming with Java'], 6, ['Java 8 Pocket Guide'], 4, ['C++ Programming in Easy Steps'], 1, ['HTML and CSS: Design and Build Websites'], 2]
```

```
In [293... #function used to remove the items that do not meet the threshold
def remove_lessthansupportone(Candidates, transactions):
    Firstcandidate_list= []
    for i in range(len(Candidates)):
        if i%2 != 0:
            if (Candidates[i] / len(new_list))*100 >= user_input_minsupport:
                Firstcandidate_list.append(Candidates[i-1])
                Firstcandidate_list.append(Candidates[i])
    candidatesforcombo = []
    for i in range(len(Firstcandidate_list)):
        if i%2 == 0:
            candidatesforcombo.append(Firstcandidate_list[i])
    return candidatesforcombo
```

```
In [294... removed_first = remove_lessthansupportone(One_UniqueItems, new_list)
print('\nThese are the candidates after the first pass\n\n', removed_first )
```

These are the candidates after the first pass

```
[[ 'A Beginner's Guide'], ['Java: The Complete Reference'], ['Java For Dummies'], ['Android Programming: The Big Nerd Ranch'], ['Head First Java 2nd Edition'], ['Beginning Programming with Java']]
```

```
In [295... #function used to output all possible combinations (k itemsets)
def Allpossiblecombinations(candidatesforcombo):
    if not candidatesforcombo:
        return [[]]
    first= candidatesforcombo[0]
    Allothers = candidatesforcombo[1:]
    Withoutfirst = Allpossiblecombinations(Allothers)
    Withfirst = [combo + [first] for combo in Withoutfirst]
    Combinedlist=Withoutfirst + Withfirst
    return Combinedlist
```

```
In [296... All_combos = Allpossiblecombinations(removed_first)
```

```
In [297... #function used to add the number of counts to the list provided before
def allcombosunique(Combination, dataset):
    from collections import Counter
    Count = Counter()
    for row in Combination:
        for s in dataset:
            if all(item in s for item in sum(row, [])):
                Count[tuple(map(tuple, row))] += 1
    listcount = [[list(subset), count] for subset, count in Count.items()]
    return(listcount)
```

```
In [298... All_uniquecombos = allcombosunique(All_combos, new_list)
print('\nAll unique possible combinations\n',All_uniquecombos )
```

All unique possible combinations

```
[[[], 20], [['Beginning Programming with Java',)], 6], [['Head First Java
2nd Edition',)], 5], [['Beginning Programming with Java',), ('Head First Ja
va 2nd Edition',)], 1], [['Android Programming: The Big Nerd Ranch',)], 1
3], [['Beginning Programming with Java',), ('Android Programming: The Big N
erd Ranch',)], 3], [['Head First Java 2nd Edition',), ('Android Programmin
g: The Big Nerd Ranch',)], 5], [['Beginning Programming with Java',), ('Hea
d First Java 2nd Edition',), ('Android Programming: The Big Nerd Ranch',)],
1], [['Java For Dummies',)], 13], [['Beginning Programming with Java',),
('Java For Dummies',)], 1], [['Head First Java 2nd Edition',), ('Java For D
ummies',)], 3], [['Beginning Programming with Java',), ('Head First Java 2n
d Edition',), ('Java For Dummies',)], 1], [['Android Programming: The Big N
erd Ranch',), ('Java For Dummies',)], 9], [['Beginning Programming with Jav
a',), ('Android Programming: The Big Nerd Ranch',), ('Java For Dummies',)],
1], [['Head First Java 2nd Edition',), ('Android Programming: The Big Nerd
Ranch',), ('Java For Dummies',)], 3], [['Beginning Programming with Jav
a',), ('Head First Java 2nd Edition',), ('Android Programming: The Big Nerd
Ranch',), ('Java For Dummies',)], 1], [['Java: The Complete Reference',)],
10], [['Head First Java 2nd Edition',), ('Java: The Complete Reference',)],
1], [['Android Programming: The Big Nerd Ranch',), ('Java: The Complete Ref
erence',)], 6], [['Head First Java 2nd Edition',), ('Android Programming: T
he Big Nerd Ranch',), ('Java: The Complete Reference',)], 1], [['Java For D
ummies',), ('Java: The Complete Reference',)], 10], [['Head First Java 2nd
Edition',), ('Java For Dummies',), ('Java: The Complete Reference',)], 1],
[['Android Programming: The Big Nerd Ranch',), ('Java For Dummies',), ('Jav
a: The Complete Reference',)], 6], [['Head First Java 2nd Edition',), ('And
roid Programming: The Big Nerd Ranch',), ('Java For Dummies',), ('Java: The
Complete Reference',)], 1], [['A Beginner's Guide',)], 11], [['Beginning P
rogramming with Java',), ('A Beginner's Guide',)], 1], [['Head First Java 2
nd Edition',), ('A Beginner's Guide',)], 2], [['Android Programming: The Bi
g Nerd Ranch',), ('A Beginner's Guide',)], 6], [['Head First Java 2nd Editi
on',), ('Android Programming: The Big Nerd Ranch',), ('A Beginner's Guid
e',)], 2], [['Java For Dummies',), ('A Beginner's Guide',)], 9], [['Head F
irst Java 2nd Edition',), ('Java For Dummies',), ('A Beginner's Guide',)],
1], [['Android Programming: The Big Nerd Ranch',), ('Java For Dummies',),
('A Beginner's Guide',)], 5], [['Head First Java 2nd Edition',), ('Android
Programming: The Big Nerd Ranch',), ('Java For Dummies',), ('A Beginner's Gu
ide',)], 1], [['Java: The Complete Reference',), ('A Beginner's Guide',)],
9], [['Head First Java 2nd Edition',), ('Java: The Complete Reference',),
('A Beginner's Guide',)], 1], [['Android Programming: The Big Nerd Ranc
h',), ('Java: The Complete Reference',), ('A Beginner's Guide',)], 5], [['H
ead First Java 2nd Edition',), ('Android Programming: The Big Nerd Ranch',),
('Java: The Complete Reference',), ('A Beginner's Guide',)], 1], [['Java Fo
r Dummies',), ('Java: The Complete Reference',), ('A Beginner's Guide',)],
9], [['Head First Java 2nd Edition',), ('Java For Dummies',), ('Java: The C
omplete Reference',), ('A Beginner's Guide',)], 1], [['Android Programming:
The Big Nerd Ranch',), ('Java For Dummies',), ('Java: The Complete Referenc
e',), ('A Beginner's Guide',)], 5], [['Head First Java 2nd Edition',), ('An
droid Programming: The Big Nerd Ranch',), ('Java For Dummies',), ('Java: The
Complete Reference',), ('A Beginner's Guide',)], 1]]
```

```
In [299... #Second function to remove the items that do not meet the threshold
def remove_lessthansupporttwo(Candidates, dataset):
    list1 = []
    for outlist in Candidates:
        if len(outlist) >= 2:
            second_object = outlist[1]
            if (second_object / len(new_list))*100 >= user_input_minsupport:
                list1.append(outlist[0])
                list1.append(outlist[1])
    return list1
```

```
In [300... removed_second = remove_lessthansupporttwo(All_uniquecombos, new_list)
print('\nThese are the candidates after the next pass\n',removed_second )
```

These are the candidates after the next pass

```
[[], 20, [('Beginning Programming with Java',)], 6, [('Head First Java 2nd
Edition',)], 5, [('Android Programming: The Big Nerd Ranch',)], 13, [('Head
First Java 2nd Edition',), ('Android Programming: The Big Nerd Ranch',)], 5,
[('Java For Dummies',)], 13, [('Android Programming: The Big Nerd Ranch',),
('Java For Dummies',)], 9, [('Java: The Complete Reference',)], 10, [('Androi
d Programming: The Big Nerd Ranch',), ('Java: The Complete Reference',)],
6, [('Java For Dummies',), ('Java: The Complete Reference',)], 10, [('Androi
d Programming: The Big Nerd Ranch',), ('Java For Dummies',), ('Java: The Com
plete Reference',)], 6, [('A Beginner's Guide',)], 11, [('Android Programmin
g: The Big Nerd Ranch',), ('A Beginner's Guide',)], 6, [('Java For Dummie
s',), ('A Beginner's Guide',)], 9, [('Android Programming: The Big Nerd Ranc
h',), ('Java For Dummies',), ('A Beginner's Guide',)], 5, [('Java: The Compl
ete Reference',), ('A Beginner's Guide',)], 9, [('Android Programming: The B
ig Nerd Ranch',), ('Java: The Complete Reference',), ('A Beginner's Guid
e',)], 5, [('Java For Dummies',), ('Java: The Complete Reference',), ('A Beg
inner's Guide',)], 9, [('Android Programming: The Big Nerd Ranch',), ('Java
For Dummies',), ('Java: The Complete Reference',), ('A Beginner's Guide',)],
5]
```

```
In [301... def Rules(CandidateSet):
    CandidateRule = []
    for candidates in CandidateSet:
        if isinstance(candidates, list):
            if len(candidates) != 0:
                length_candidates = len(candidates) - 1
                while length_candidates > 0:
                    combos = list(itertools.combinations(candidates, length_
                    combolist = []
                    Left = []
                    for Right in combos:
                        Left = set(candidates) - set(Right)
                        combolist.append(list(Left))
                        combolist.append(list(Right))
                        CandidateRule.append(combolist)
                        combolist = []
                    length_candidates = length_candidates - 1

    return CandidateRule
```

```
In [302... Associationrules = Rules(removed_second)
print('\nThese are the association rules\n\n', Associationrules )
```

These are the association rules

```
[[('Android Programming: The Big Nerd Ranch',)], [('Head First Java 2nd Ed
ition',)], [('Head First Java 2nd Edition',)], [('Android Programming: The
Big Nerd Ranch',)], [('Java For Dummies',)], [('Android Programming: The B
ig Nerd Ranch',)], [('Android Programming: The Big Nerd Ranch',)], [('Java
For Dummies',)], [('Java: The Complete Reference',)], [('Android Programmi
ng: The Big Nerd Ranch',)], [('Android Programming: The Big Nerd Ranc
h',)], [('Java: The Complete Reference',)], [('Java: The Complete Referenc
e',)], [('Java For Dummies',)], [('Java For Dummies',)], [('Java: The Comp
lete Reference',)], [('Java: The Complete Reference',)], [('Android Progra
mming: The Big Nerd Ranch',), ('Java For Dummies',)], [('Java For Dummie
s',)], [('Android Programming: The Big Nerd Ranch',), ('Java: The Complete R
eference',)], [('Android Programming: The Big Nerd Ranch',)], [('Java For
Dummies',), ('Java: The Complete Reference',)], [('Java: The Complete Refe
rence',), ('Java For Dummies',)], [('Android Programming: The Big Nerd Ranc
h',)], [('Android Programming: The Big Nerd Ranch',), ('Java: The Complete
Reference',)], [('Java For Dummies',)], [('Android Programming: The Big Ne
rd Ranch',), ('Java For Dummies',)], [('Java: The Complete Reference',)],
[('A Beginner's Guide',)], [('Android Programming: The Big Nerd Ranch',)],
[('Android Programming: The Big Nerd Ranch',)], [('A Beginner's Guide',)],
[('A Beginner's Guide',)], [('Java For Dummies',)], [('Java For Dummie
s',)], [('A Beginner's Guide',)], [('A Beginner's Guide',)], [('Android Pr
ogramming: The Big Nerd Ranch',), ('Java For Dummies',)], [('Java For Dumm
ies',)], [('Android Programming: The Big Nerd Ranch',), ('A Beginner's Guid
e',)], [('Android Programming: The Big Nerd Ranch',)], [('Java For Dummie
s',), ('A Beginner's Guide',)], [('A Beginner's Guide',), ('Java For Dummie
s',)], [('Android Programming: The Big Nerd Ranch',)], [('Android Program
ming: The Big Nerd Ranch',), ('A Beginner's Guide',)], [('Java For Dummie
```

```

s',)], [(['Android Programming: The Big Nerd Ranch',)], ('Java For Dummie
s',)], [(['A Beginner's Guide',)], [(['A Beginner's Guide',)], [(['Java: The
Complete Reference',)], [(['Java: The Complete Reference',)], [(['A Beginne
r's Guide',)], [(['A Beginner's Guide',)], [(['Android Programming: The Big
Nerd Ranch',)], ('Java: The Complete Reference',)], [(['Java: The Complete R
eference',)], [(['Android Programming: The Big Nerd Ranch',)], ('A Beginner's
Guide',)], [(['Android Programming: The Big Nerd Ranch',)], [(['Java: The Co
mplete Reference',)], ('A Beginner's Guide',)], [(['A Beginner's Guide',)],
('Java: The Complete Reference',)], [(['Android Programming: The Big Nerd Ran
ch',)], [(['Android Programming: The Big Nerd Ranch',)], ('A Beginner's Guid
e',)], [(['Java: The Complete Reference',)], [(['Android Programming: The Bi
g Nerd Ranch',)], ('Java: The Complete Reference',)], [(['A Beginner's Guid
e',)], [(['A Beginner's Guide',)], [(['Java For Dummies',)], ('Java: The Comp
lete Reference',)], [(['Java: The Complete Reference',)], [(['Java For Dummi
es',)], ('A Beginner's Guide',)], [(['Java For Dummies',)], [(['Java: The Com
plete Reference',)], ('A Beginner's Guide',)], [(['A Beginner's Guide',)], ('
Java: The Complete Reference',)], [(['Java For Dummies',)], [(['A Beginner's
Guide',)], ('Java For Dummies',)], [(['Java: The Complete Reference',)], [(['
Java: The Complete Reference',)], ('Java For Dummies',)], [(['A Beginner's Gui
de',)], [(['A Beginner's Guide',)], [(['Android Programming: The Big Nerd Ra
nch',)], ('Java For Dummies',)], ('Java: The Complete Reference',)], [(['Jav
a: The Complete Reference',)], [(['Android Programming: The Big Nerd Ranc
h',)], ('Java For Dummies',)], ('A Beginner's Guide',)], [(['Java For Dummie
s',)], [(['Android Programming: The Big Nerd Ranch',)], ('Java: The Complete R
eference',)], ('A Beginner's Guide',)], [(['Android Programming: The Big Ner
d Ranch',)], [(['Java For Dummies',)], ('Java: The Complete Reference',)], ('A
Beginner's Guide',)], [(['A Beginner's Guide',)], ('Java: The Complete Refer
ence',)], [(['Android Programming: The Big Nerd Ranch',)], ('Java For Dummie
s',)], [(['A Beginner's Guide',)], ('Java For Dummies',)], [(['Android Progra
mming: The Big Nerd Ranch',)], ('Java: The Complete Reference',)], [(['Java:
The Complete Reference',)], ('Java For Dummies',)], [(['Android Programming: T
he Big Nerd Ranch',)], ('A Beginner's Guide',)], [(['Android Programming: Th
e Big Nerd Ranch',)], ('A Beginner's Guide',)], [(['Java For Dummies',)], ('Jav
a: The Complete Reference',)], [(['Android Programming: The Big Nerd Ranc
h',)], ('Java: The Complete Reference',)], [(['Java For Dummies',)], ('A Beginn
er's Guide',)], [(['Android Programming: The Big Nerd Ranch',)], ('Java For
Dummies',)], [(['Java: The Complete Reference',)], ('A Beginner's Guide',)],
[(['A Beginner's Guide',)], ('Java: The Complete Reference',)], ('Java For Dum
mies',)], [(['Android Programming: The Big Nerd Ranch',)], [(['Android Progr
amming: The Big Nerd Ranch',)], ('Java: The Complete Reference',)], ('A Beginn
er's Guide',)], [(['Java For Dummies',)], [(['Android Programming: The Big N
erd Ranch',)], ('Java For Dummies',)], ('A Beginner's Guide',)], [(['Java: The
Complete Reference',)], [(['Android Programming: The Big Nerd Ranch',)], ('J
ava: The Complete Reference',)], ('Java For Dummies',)], [(['A Beginner's Guid
e',)]]]

```

```
In [303... def Apriori(Associationrules, new_list, user_input_minConfidence):
    AAlgorithm = []
    for rule in Associationrules:
        first = set(item[0] for item in rule[0])
        ASupport = 0
        ABsupport = 0
        for transaction in new_list:
            if first.issubset(set(transaction)):
                ASupport += 1
            if all(set(item) <= set(transaction) for each in rule for item in i
                ABsupport += 1
        CalculateASupport = (ASupport * 1.0 / len(new_list)) * 100
        CalculateABSupport = (ABsupport * 1.0 / len(new_list)) * 100
        confidence = (CalculateABSupport / CalculateASupport) * 100
        if confidence >= user_input_minConfidence:
            OutputASupport = "A Support is: " + str(round(CalculateASupport,
            OutputABSupport = "\nA&B support is: " + str(CalculateABSupport)
            OutputConfidence = "\nConfidence is: " + str(round(confidence))
            AAlgorithm.append(OutputASupport)
            AAlgorithm.append(OutputABSupport)
            AAlgorithm.append(OutputConfidence)
            AAlgorithm.append(rule)
    return AAlgorithm
```

```
In [304... Apriori = Apriori(Associationrules, new_list, user_input_minConfidence)
print('\nApriori algorithm\n', Apriori )
```


Apriori algorithm

```

['A Support is: 25.0', '\nA&B support is: 25.0', '\nConfidence is: 100',
[['Head First Java 2nd Edition',)], [('Android Programming: The Big Nerd Ranch',)], 'A Support is: 50.0', '\nA&B support is: 50.0', '\nConfidence is: 100',
[['Java: The Complete Reference',)], [('Java For Dummies',)], 'A Support is: 65.0', '\nA&B support is: 50.0', '\nConfidence is: 77',
[['Java For Dummies',)], [('Java: The Complete Reference',)], 'A Support is: 30.0', '\nA&B support is: 30.0', '\nConfidence is: 100',
[['Android Programming: The Big Nerd Ranch',)], ('Java: The Complete Reference',)], [('Java For Dummies',)], 'A Support is: 55.0', '\nA&B support is: 45.0', '\nConfidence is: 82',
[['A Beginner's Guide',)], [('Java For Dummies',)], 'A Support is: 30.0', '\nA&B support is: 25.0', '\nConfidence is: 83',
[['Android Programming: The Big Nerd Ranch',)], ('A Beginner's Guide',)], [('Java For Dummies',)], 'A Support is: 55.0', '\nA&B support is: 45.0', '\nConfidence is: 82',
[['A Beginner's Guide',)], [('Java: The Complete Reference',)], 'A Support is: 50.0', '\nA&B support is: 45.0', '\nConfidence is: 90',
[['Java: The Complete Reference',)], ('A Beginner's Guide',)], 'A Support is: 30.0', '\nA&B support is: 25.0', '\nConfidence is: 83',
[['Android Programming: The Big Nerd Ranch',)], ('A Beginner's Guide',)], ('Java: The Complete Reference',)], 'A Support is: 30.0', '\nA&B support is: 25.0', '\nConfidence is: 83',
[['Android Programming: The Big Nerd Ranch',)], ('Java: The Complete Reference',)], ('A Beginner's Guide',)], 'A Support is: 55.0', '\nA&B support is: 45.0', '\nConfidence is: 82',
[['A Beginner's Guide',)], ('Java For Dummies',)], ('Java: The Complete Reference',)], 'A Support is: 50.0', '\nA&B support is: 45.0', '\nConfidence is: 90',
[['Java: The Complete Reference',)], ('Java For Dummies',)], ('A Beginner's Guide',)], 'A Support is: 45.0', '\nA&B support is: 45.0', '\nConfidence is: 100',
[['A Beginner's Guide',)], ('Java: The Complete Reference',)], ('Java For Dummies',)], 'A Support is: 45.0', '\nA&B support is: 45.0', '\nConfidence is: 100',
[['A Beginner's Guide',)], ('Java For Dummies',)], ('Java: The Complete Reference',)], 'A Support is: 50.0', '\nA&B support is: 45.0', '\nConfidence is: 90',
[['Java: The Complete Reference',)], ('Java For Dummies',)], ('A Beginner's Guide',)], 'A Support is: 30.0', '\nA&B support is: 25.0', '\nConfidence is: 83',
[['Android Programming: The Big Nerd Ranch',)], ('A Beginner's Guide',)], ('Java For Dummies',)], ('Java: The Complete Reference',)], 'A Support is: 30.0', '\nA&B support is: 25.0', '\nConfidence is: 83',
[['Android Programming: The Big Nerd Ranch',)], ('Java: The Complete Reference',)], ('Java For Dummies',)], ('A Beginner's Guide',)], 'A Support is: 25.0', '\nA&B support is: 25.0', '\nConfidence is: 100',
[['Android Programming: The Big Nerd Ranch',)], ('Java: The Complete Reference',)], ('Java For Dummies',)], ('A Beginner's Guide',)], 'A Support is: 25.0', '\nA&B support is: 25.0', '\nConfidence is: 100',
[['Android Programming: The Big Nerd Ranch',)], ('Java: The Complete Reference',)], ('A Beginner's Guide',)], 'A Support is: 30.0', '\nA&B support is: 25.0', '\nConfidence is: 83',
[['Android Programming: The Big Nerd Ranch',)], ('Java: The Complete Reference',)], ('Java For Dummies',)], ('A Beginner's Guide',)]]
```

```
In [305... counter = 1
for i in Apriori:
    if counter == 4:
        print("\n"+str(i[0]) + "----->" + str(i[1])+"\n")
        counter = 0
    else:
        print(i, end=' ')
        counter = counter + 1
elapsed_time = time.time() - start_time
print("--- %s seconds ---" % (elapsed_time))
```

```
A Support is: 25.0
A&B support is: 25.0
Confidence is: 100
[('Head First Java 2nd Edition',)]----->[('Android Programming: The Big Nerd Ranch',)]
```

```
A Support is: 50.0
A&B support is: 50.0
Confidence is: 100
[('Java: The Complete Reference',)]----->[('Java For Dummies',)]
```

```
A Support is: 65.0
A&B support is: 50.0
Confidence is: 77
[('Java For Dummies',)]----->[('Java: The Complete Reference',)]
```

```
A Support is: 30.0
A&B support is: 30.0
Confidence is: 100
[('Android Programming: The Big Nerd Ranch',), ('Java: The Complete Reference',)]----->[('Java For Dummies',)]
```

```
A Support is: 55.0
A&B support is: 45.0
Confidence is: 82
[('A Beginner's Guide',)]----->[('Java For Dummies',)]
```

```
A Support is: 30.0
A&B support is: 25.0
Confidence is: 83
[('Android Programming: The Big Nerd Ranch',), ('A Beginner's Guide',)]----->[('Java For Dummies',)]
```

```
A Support is: 55.0
A&B support is: 45.0
Confidence is: 82
[('A Beginner's Guide',)]----->[('Java: The Complete Reference',)]
```

```
A Support is: 50.0
A&B support is: 45.0
Confidence is: 90
[('Java: The Complete Reference',)]----->[('A Beginner's Guide',)]
```

```

A Support is: 30.0
A&B support is: 25.0
Confidence is: 83
[('Android Programming: The Big Nerd Ranch',), ('A Beginner's Guide',)]-----
-->[('Java: The Complete Reference',)]

A Support is: 30.0
A&B support is: 25.0
Confidence is: 83
[('Android Programming: The Big Nerd Ranch',), ('Java: The Complete Referenc
e',)]----->[('A Beginner's Guide',)]

A Support is: 55.0
A&B support is: 45.0
Confidence is: 82
[('A Beginner's Guide',)]----->[('Java For Dummies',), ('Java: The Complet
e Reference',)]

A Support is: 50.0
A&B support is: 45.0
Confidence is: 90
[('Java: The Complete Reference',)]----->[('Java For Dummies',), ('A Begin
ner's Guide',)]

A Support is: 45.0
A&B support is: 45.0
Confidence is: 100
[('A Beginner's Guide',), ('Java: The Complete Reference',)]----->[('Java
For Dummies',)]

A Support is: 45.0
A&B support is: 45.0
Confidence is: 100
[('A Beginner's Guide',), ('Java For Dummies',)]----->[('Java: The Complet
e Reference',)]

A Support is: 50.0
A&B support is: 45.0
Confidence is: 90
[('Java: The Complete Reference',), ('Java For Dummies',)]----->[('A Begin
ner's Guide',)]

A Support is: 30.0
A&B support is: 25.0
Confidence is: 83
[('Android Programming: The Big Nerd Ranch',), ('A Beginner's Guide',)]-----
-->[('Java For Dummies',), ('Java: The Complete Reference',)]

A Support is: 30.0
A&B support is: 25.0
Confidence is: 83
[('Android Programming: The Big Nerd Ranch',), ('Java: The Complete Referenc

```

```
e',))----->[('Java For Dummies',), ('A Beginner's Guide',)]

A Support is: 25.0
A&B support is: 25.0
Confidence is: 100
[('Android Programming: The Big Nerd Ranch',), ('Java: The Complete Referenc
e',), ('A Beginner's Guide',)]----->[('Java For Dummies',)]

A Support is: 25.0
A&B support is: 25.0
Confidence is: 100
[('Android Programming: The Big Nerd Ranch',), ('Java For Dummies',), ('A Be
ginner's Guide',)]----->[('Java: The Complete Reference',)]

A Support is: 30.0
A&B support is: 25.0
Confidence is: 83
[('Android Programming: The Big Nerd Ranch',), ('Java: The Complete Referenc
e',), ('Java For Dummies',)]----->[('A Beginner's Guide',)]

--- 0.08064889907836914 seconds ---
```

Brute Force

```
In [306... import pandas as pd
import time
from itertools import combinations
```

```
In [307... Transactiondata = input("Enter the file name: ")
minsupport = float(input('Please enter the minimum support value'))
```

```
Enter the file name: Transactions_1.csv
Please enter the minimum support value25
```

```
In [308... start_time = time.time()
transaction = pd.read_csv(Transactiondata, header =None)
TransactionforSum = pd.get_dummies(transaction.unstack().dropna()).groupby(1
UniqueItems = TransactionforSum.sum()
```

```
In [309... print('\nThese are all unique one item sets:\n\n', UniqueItems)
```

These are all unique one item sets:

A Beginner's Guide	11
Android Programming: The Big Nerd Ranch	13
Beginning Programming with Java	6
C++ Programming in Easy Steps	1
HTML and CSS: Design and Build Websites	2
Head First Java 2nd Edition	5
Head First Java 2nd Edition	3
Java 8 Pocket Guide	4
Java For Dummies	13
Java: The Complete Reference	10

dtype: int64

```
In [310... OneItemSets = pd.DataFrame((UniqueItems / len(transaction) * 100), columns =
OneFrequentItems = OneItemSets[OneItemSets['support'] >= minsupport]
print('These are the Frequent One Item sets:\n', OneFrequentItems)
```

These are the Frequent One Item sets:

	support
A Beginner's Guide	55.0
Android Programming: The Big Nerd Ranch	65.0
Beginning Programming with Java	30.0
Head First Java 2nd Edition	25.0
Java For Dummies	65.0
Java: The Complete Reference	50.0

```
In [311... import itertools
items = UniqueItems.index
combos = list(itertools.combinations(items, 2))
combinations = []
for combo in combos:
    combinations.append(combo)
```

```
In [312... combo_counts = {}
for i in range(len(combinations)):
    combo = combinations[i]
    count = 0
    for index, row in transaction.iterrows():
        if set(combo).issubset(row):
            count += 1
    combo_counts[i+1] = count
print('These are all the two possible combinations:\n\n')
for combo_num, count in combo_counts.items():
    print(f"({combinations[combo_num-1]}) , Number of repetitions {count}.")
```

These are all the two possible combinations:

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch')) , Number of repetitions 6.
 (('A Beginner's Guide', 'Beginning Programming with Java')) , Number of repetitions 1.

```

(('A Beginner's Guide', 'C++ Programming in Easy Steps')) , Number of repetitions 0.
(('A Beginner's Guide', 'HTML and CSS: Design and Build Websites')) , Number of repetitions 2.
(('A Beginner's Guide', 'Head First Java 2nd Edition')) , Number of repetitions 2.
(('A Beginner's Guide', 'Head First Java 2nd Edition ')) , Number of repetitions 1.
(('A Beginner's Guide', 'Java 8 Pocket Guide')) , Number of repetitions 1.
(('A Beginner's Guide', 'Java For Dummies')) , Number of repetitions 9.
(('A Beginner's Guide', 'Java: The Complete Reference')) , Number of repetitions 9.
(('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java')) , Number of repetitions 3.
(('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps')) , Number of repetitions 0.
(('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites')) , Number of repetitions 0.
(('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition')) , Number of repetitions 5.
(('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition ')) , Number of repetitions 1.
(('Android Programming: The Big Nerd Ranch', 'Java 8 Pocket Guide')) , Number of repetitions 1.
(('Android Programming: The Big Nerd Ranch', 'Java For Dummies')) , Number of repetitions 9.
(('Android Programming: The Big Nerd Ranch', 'Java: The Complete Reference')) , Number of repetitions 6.
(('Beginning Programming with Java', 'C++ Programming in Easy Steps')) , Number of repetitions 1.
(('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites')) , Number of repetitions 0.
(('Beginning Programming with Java', 'Head First Java 2nd Edition')) , Number of repetitions 1.
(('Beginning Programming with Java', 'Head First Java 2nd Edition ')) , Number of repetitions 3.
(('Beginning Programming with Java', 'Java 8 Pocket Guide')) , Number of repetitions 3.
(('Beginning Programming with Java', 'Java For Dummies')) , Number of repetitions 1.
(('Beginning Programming with Java', 'Java: The Complete Reference')) , Number of repetitions 0.
(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites')) , Number of repetitions 0.
(('C++ Programming in Easy Steps', 'Head First Java 2nd Edition')) , Number of repetitions 0.
(('C++ Programming in Easy Steps', 'Head First Java 2nd Edition ')) , Number of repetitions 0.
(('C++ Programming in Easy Steps', 'Java 8 Pocket Guide')) , Number of repetitions 1.
(('C++ Programming in Easy Steps', 'Java For Dummies')) , Number of repetitions 0.
(('C++ Programming in Easy Steps', 'Java: The Complete Reference')) , Number

```

```

r of repetitions 0.
(('HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition'))
, Number of repetitions 0.
(('HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition
')) , Number of repetitions 0.
(('HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide')) , Numbe
er of repetitions 1.
(('HTML and CSS: Design and Build Websites', 'Java For Dummies')) , Number
of repetitions 2.
(('HTML and CSS: Design and Build Websites', 'Java: The Complete Referenc
e')) , Number of repetitions 2.
(('Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) , Number
of repetitions 0.
(('Head First Java 2nd Edition', 'Java 8 Pocket Guide')) , Number of repeti
tions 0.
(('Head First Java 2nd Edition', 'Java For Dummies')) , Number of repetitio
ns 3.
(('Head First Java 2nd Edition', 'Java: The Complete Reference')) , Number
of repetitions 1.
(('Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) , Number of repet
itions 1.
(('Head First Java 2nd Edition ', 'Java For Dummies')) , Number of repetiti
ons 0.
(('Head First Java 2nd Edition ', 'Java: The Complete Reference')) , Number
of repetitions 0.
(('Java 8 Pocket Guide', 'Java For Dummies')) , Number of repetitions 1.
(('Java 8 Pocket Guide', 'Java: The Complete Reference')) , Number of repet
itions 1.
(('Java For Dummies', 'Java: The Complete Reference')) , Number of repetiti
ons 10.

```

```

In [313]: print('These are the 2 frequent itemsets:\n\n')
for combo_num, count in combo_counts.items():
    if (count / len(transaction) * 100) >= minsupport:
        print(f" ({{combinations[combo_num-1]}})    number of repetition: {count}

```

These are the 2 frequent itemsets:

```

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch'))    numbe
r of repetition: 6.
(('A Beginner's Guide', 'Java For Dummies'))    number of repetition: 9.
(('A Beginner's Guide', 'Java: The Complete Reference'))    number of repeti
tion: 9.
(('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Editio
n'))    number of repetition: 5.
(('Android Programming: The Big Nerd Ranch', 'Java For Dummies'))    number
of repetition: 9.
(('Android Programming: The Big Nerd Ranch', 'Java: The Complete Referenc
e'))    number of repetition: 6.
(('Java For Dummies', 'Java: The Complete Reference'))    number of repetiti
on: 10.

```

```
In [314... combinations = []
for r in range(3,4):
    combos = list(itertools.combinations(items, r))
    combinations.extend(combos)

# Filter out empty tuples
combinations = [combo for combo in combinations if combo]
```

```
In [315... combo_counts = {}
for i in range(len(combinations)):
    combo = combinations[i]
    count = 0
    for index, row in transaction.iterrows():
        if set(combo).issubset(row):
            count += 1
    combo_counts[i+1] = count
print('These are the 3 possible combinations\n\n')
for combo_num, count in combo_counts.items():
    print(f"({combinations[combo_num-1]}) number of repetitions {count}\n")
```

These are the 3 possible combinations

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java')) number of repetitions 0

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps')) number of repetitions 0

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites')) number of repetitions 0

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition')) number of repetitions 2

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition ')) number of repetitions 0

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Java 8 Pocket Guide')) number of repetitions 0

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Java For Dummies')) number of repetitions 5

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Java: The Complete Reference')) number of repetitions 5

(('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps')) number of repetitions 0

(('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites')) number of repetitions 0


```

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java
2nd Edition')) number of repetitions 0

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java
2nd Edition ')) number of repetitions 1

(('A Beginner's Guide', 'Beginning Programming with Java', 'Java 8 Pocket Gu
ide')) number of repetitions 0

(('A Beginner's Guide', 'Beginning Programming with Java', 'Java For Dummie
s')) number of repetitions 0

(('A Beginner's Guide', 'Beginning Programming with Java', 'Java: The Comple
te Reference')) number of repetitions 0

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Desi
gn and Build Websites')) number of repetitions 0

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2n
d Edition')) number of repetitions 0

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2n
d Edition ')) number of repetitions 0

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guid
e')) number of repetitions 0

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Java For Dummie
s')) number of repetitions 0

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Java: The Complete
Reference')) number of repetitions 0

(('A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition')) number of repetitions 0

(('A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition ')) number of repetitions 0

(('A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Java 8 P
ocket Guide')) number of repetitions 1

(('A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Java For
Dummies')) number of repetitions 2

(('A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Java: Th
e Complete Reference')) number of repetitions 2

(('A Beginner's Guide', 'Head First Java 2nd Edition', 'Head First Java 2nd
Edition ')) number of repetitions 0

(('A Beginner's Guide', 'Head First Java 2nd Edition', 'Java 8 Pocket Guid

```

```

e')) number of repetitions 0

(('A Beginner's Guide', 'Head First Java 2nd Edition', 'Java For Dummies'))
number of repetitions 1

(('A Beginner's Guide', 'Head First Java 2nd Edition', 'Java: The Complete R
eference')) number of repetitions 1

(('A Beginner's Guide', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guid
e')) number of repetitions 0

(('A Beginner's Guide', 'Head First Java 2nd Edition ', 'Java For Dummies'))
number of repetitions 0

(('A Beginner's Guide', 'Head First Java 2nd Edition ', 'Java: The Complete
Reference')) number of repetitions 0

(('A Beginner's Guide', 'Java 8 Pocket Guide', 'Java For Dummies')) number o
f repetitions 1

(('A Beginner's Guide', 'Java 8 Pocket Guide', 'Java: The Complete Referenc
e')) number of repetitions 1

(('A Beginner's Guide', 'Java For Dummies', 'Java: The Complete Reference'))
number of repetitions 9

(('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'C++ Programming in Easy Steps')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'HTML and CSS: Design and Build Websites')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'Head First Java 2nd Edition')) number of repetitions 1

(('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'Head First Java 2nd Edition ')) number of repetitions 1

(('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'Java 8 Pocket Guide')) number of repetitions 1

(('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'Java For Dummies')) number of repetitions 1

(('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'Java: The Complete Reference')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Step
s', 'HTML and CSS: Design and Build Websites')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Step
s', 'Head First Java 2nd Edition')) number of repetitions 0

```

```

(('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Java For Dummies')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Java: The Complete Reference')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Java For Dummies')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Java: The Complete Reference')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 3

(('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 1

(('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0

(('Android Programming: The Big Nerd Ranch', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0

```

```

(('Android Programming: The Big Nerd Ranch', 'Java For Dummies', 'Java: The
Complete Reference')) number of repetitions 6

(('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML
and CSS: Design and Build Websites')) number of repetitions 0

(('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head
First Java 2nd Edition')) number of repetitions 0

(('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head
First Java 2nd Edition ')) number of repetitions 0

(('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java
8 Pocket Guide')) number of repetitions 1

(('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java
For Dummies')) number of repetitions 0

(('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java:
The Complete Reference')) number of repetitions 0

(('Beginning Programming with Java', 'HTML and CSS: Design and Build Website
s', 'Head First Java 2nd Edition')) number of repetitions 0

(('Beginning Programming with Java', 'HTML and CSS: Design and Build Website
s', 'Head First Java 2nd Edition ')) number of repetitions 0

(('Beginning Programming with Java', 'HTML and CSS: Design and Build Website
s', 'Java 8 Pocket Guide')) number of repetitions 0

(('Beginning Programming with Java', 'HTML and CSS: Design and Build Website
s', 'Java For Dummies')) number of repetitions 0

(('Beginning Programming with Java', 'HTML and CSS: Design and Build Website
s', 'Java: The Complete Reference')) number of repetitions 0

(('Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head Fi
rst Java 2nd Edition ')) number of repetitions 0

(('Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java 8
Pocket Guide')) number of repetitions 0

(('Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java Fo
r Dummies')) number of repetitions 1

(('Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java: T
he Complete Reference')) number of repetitions 0

(('Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java 8
Pocket Guide')) number of repetitions 1

(('Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java F

```

```

or Dummies')) number of repetitions 0

(('Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java:
The Complete Reference')) number of repetitions 0

(('Beginning Programming with Java', 'Java 8 Pocket Guide', 'Java For Dummie
s')) number of repetitions 0

(('Beginning Programming with Java', 'Java 8 Pocket Guide', 'Java: The Compl
ete Reference')) number of repetitions 0

(('Beginning Programming with Java', 'Java For Dummies', 'Java: The Complete
Reference')) number of repetitions 0

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Head First Java 2nd Edition')) number of repetitions 0

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Head First Java 2nd Edition ')) number of repetitions 0

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Java 8 Pocket Guide')) number of repetitions 0

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Java For Dummies')) number of repetitions 0

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Java: The Complete Reference')) number of repetitions 0

(('C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head Firs
t Java 2nd Edition ')) number of repetitions 0

(('C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Po
cket Guide')) number of repetitions 0

(('C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java For
Dummies')) number of repetitions 0

(('C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java: The
Complete Reference')) number of repetitions 0

(('C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 P
ocket Guide')) number of repetitions 0

(('C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java For
Dummies')) number of repetitions 0

(('C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java: Th
e Complete Reference')) number of repetitions 0

(('C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java For Dummie
s')) number of repetitions 0

```

```

(('C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0

(('C++ Programming in Easy Steps', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0

(('HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0

(('HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0

(('HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0

(('HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0

(('HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0

(('HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0

(('HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0

(('HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 1

(('HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 1

(('HTML and CSS: Design and Build Websites', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 2

(('Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0

(('Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0

(('Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0

(('Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0

(('Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0

(('Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 1

```

```
(( 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0

(( 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0

(( 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0

(( 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 1
```

```
In [316... print('These are the 3 Frequent item set:\n\n')
for combo_num, count in combo_counts.items():
    if (count / len(transaction) * 100) >= minsupport:
        print(f"({combinations[combo_num-1]}) number of repetitions {count}\n")
```

These are the 3 Frequent item set:

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Java For Dummies')) number of repetitions 5

(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Java: The Complete Reference')) number of repetitions 5

(( 'A Beginner's Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 9

(( 'Android Programming: The Big Nerd Ranch', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 6
```

```
In [317... combinations = []
for r in range(4,20):
    combos = list(itertools.combinations(items, r))
    combinations.extend(combos)

# Filter out empty tuples
combinations = [combo for combo in combinations if combo]
```

```
In [318... combo_counts = {}
for i in range(len(combinations)):
    combo = combinations[i]
    count = 0
    for index, row in transaction.iterrows():
        if set(combo).issubset(row):
            count += 1
            #print(f"Combo {i+1} ({combo}) is a subset of row {index} in the
    combo_counts[i+1] = count
print('These are the 4 and 4+ Frequent item sets:\n\n')
for combo_num, count in combo_counts.items():
    print(f"({combinations[combo_num-1]}) number of repetitions {count}.\n\n")
```

These are the 4 and 4+ Frequent item sets:

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 1.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 1.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 5.

(('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming

in Easy Steps', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.

d Edition', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

```

(('A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition ', 'Java: The Complete Reference')) number of repetition
s 0.

(('A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Java 8 P
ocket Guide', 'Java For Dummies')) number of repetitions 1.

(('A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Java 8 P
ocket Guide', 'Java: The Complete Reference')) number of repetitions 1.

(('A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Java For
Dummies', 'Java: The Complete Reference')) number of repetitions 2.

(('A Beginner's Guide', 'Head First Java 2nd Edition', 'Head First Java 2nd
Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Head First Java 2nd Edition', 'Head First Java 2nd
Edition ', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Head First Java 2nd Edition', 'Head First Java 2nd
Edition ', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Head First Java 2nd Edition', 'Java 8 Pocket Guid
e', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Head First Java 2nd Edition', 'Java 8 Pocket Guid
e', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Head First Java 2nd Edition', 'Java For Dummies', '
Java: The Complete Reference')) number of repetitions 1.

(('A Beginner's Guide', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guid
e', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guid
e', 'Java: The Complete Reference')) number of repetitions 0.

```

```

(('A Beginner's Guide', 'Head First Java 2nd Edition ', 'Java For Dummies',
'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: Th
e Complete Reference')) number of repetitions 1.

(('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s')) number of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition')) number
of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ')) number
of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide')) number of repet
itions 0.

(('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'C++ Programming in Easy Steps', 'Java For Dummies')) number of repetiti
ons 0.

(('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'C++ Programming in Easy Steps', 'Java: The Complete Reference')) number
of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Editio
n')) number of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition
')) number of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide')) numbe
r of repetitions 0.

```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 1.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```



```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.
```

tions 0.

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build
```

```

Websites', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of re
petitions 0.

(('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build
Websites', 'Head First Java 2nd Edition ', 'Java: The Complete Reference'))
number of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build
Websites', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions
0.

(('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build
Websites', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of
repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build
Websites', 'Java For Dummies', 'Java: The Complete Reference')) number of re
petitions 0.

(('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition',
'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetition
s 0.

(('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition',
'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions
0.

(('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition',
'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of r
epetitions 0.

(('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition',
'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition',
'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetition
s 0.

(('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition',
'Java For Dummies', 'Java: The Complete Reference')) number of repetitions
1.

```

```
((('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition ',
'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition ',
'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetition
s 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition ',
'Java For Dummies', 'Java: The Complete Reference')) number of repetitions
0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Java 8 Pocket Guide', 'Java Fo
r Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML
and CSS: Design and Build Websites', 'Head First Java 2nd Edition')) number
of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML
and CSS: Design and Build Websites', 'Head First Java 2nd Edition ')) number
of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML
and CSS: Design and Build Websites', 'Java 8 Pocket Guide')) number of repet
itions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML
and CSS: Design and Build Websites', 'Java For Dummies')) number of repetiti
ons 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML
and CSS: Design and Build Websites', 'Java: The Complete Reference')) number
of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head
First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetiti
ons 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head
First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head
```

First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.

(('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.

(('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

(('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

(('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

(('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.

(('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.

(('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.

(('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

((('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

((('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

((('Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

((('Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website

s', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.


```
(( 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition',
'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
(( 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition',
'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition',
'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition',
'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition',
'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition',
'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ',
'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ',
'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ',
'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 1.
```

```
(( 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

ket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ')) number of repetitions 0.

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java 8
Pocket Guide')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java F
or Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java:
The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2n
d Edition ')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'Head First Java 2nd Edition', 'Java 8 Pocket Guid
e')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'Head First Java 2nd Edition', 'Java For Dummie
s')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'Head First Java 2nd Edition', 'Java: The Complete
Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'Head First Java 2nd Edition ', 'Java 8 Pocket Gui
de')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'Head First Java 2nd Edition ', 'Java For Dummie
s')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'Head First Java 2nd Edition ', 'Java: The Complet
e Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
```

```

g Programming with Java', 'Java 8 Pocket Guide', 'Java For Dummies')) number
of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'Java 8 Pocket Guide', 'Java: The Complete Referen
ce')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'Java For Dummies', 'Java: The Complete Referenc
e')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 P
ocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java For
Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java: Th
e Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd
Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guid
e')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'Head First Java 2nd Edition', 'Java For Dummies'))
number of repetitions 0.

```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java: The C
```

omplete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 1.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming
in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition
')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming
in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) numbe
r of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming
in Easy Steps', 'Head First Java 2nd Edition', 'Java For Dummies')) number o
f repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming
in Easy Steps', 'Head First Java 2nd Edition', 'Java: The Complete Referenc
e')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming
in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) numb
er of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming
in Easy Steps', 'Head First Java 2nd Edition ', 'Java For Dummies')) number
of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming
in Easy Steps', 'Head First Java 2nd Edition ', 'Java: The Complete Referenc
e')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming
in Easy Steps', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repeti
tions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming
in Easy Steps', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) numb
er of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming
in Easy Steps', 'Java For Dummies', 'Java: The Complete Reference')) number
of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: De
```



```

sign and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

```

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.

e')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies'))
number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

```
(( 'A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 1.
```

```
(( 'A Beginner's Guide', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Head First Java 2nd Edition', 'Java 8 Pocket Guid
```

e', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java For Dummies')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Head First Java 2nd Edition ')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ')) number of repetitions 0.
```

', 'Java 8 Pocket Guide')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.


```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps
```

```

s', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummie
s')) number of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Step
s', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Comple
te Reference')) number of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Step
s', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete
Reference')) number of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Step
s', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Referenc
e')) number of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build
Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'J
ava 8 Pocket Guide')) number of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build
Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'J
ava For Dummies')) number of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build
Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'J
ava: The Complete Reference')) number of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build
Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For D
ummies')) number of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build
Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The
Complete Reference')) number of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build
Websites', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Com
plete Reference')) number of repetitions 0.

(('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build
Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For
Dummies')) number of repetitions 0.

```

```
((('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java Fo
```

r Dummies')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'HTML and CSS: Design and Build Website  
s', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complet  
e Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'HTML and CSS: Design and Build Website  
s', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete R  
eference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'HTML and CSS: Design and Build Website  
s', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummie  
s')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'HTML and CSS: Design and Build Website  
s', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Comple  
te Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'HTML and CSS: Design and Build Website  
s', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete  
Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'HTML and CSS: Design and Build Website  
s', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Referenc  
e')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head Fi  
rst Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number o  
f repetitions 0.
```

```
((('Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head Fi  
rst Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Referenc  
e')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head Fi  
rst Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference'))  
number of repetitions 0.
```

```
((('Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java 8  
Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number o  
f repetitions 0.
```

```
((('Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java 8
```

```

Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number o
f repetitions 0.

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 P
ocket Guide')) number of repetitions 0.

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For
Dummies')) number of repetitions 0.

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: Th
e Complete Reference')) number of repetitions 0.

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummie
s')) number of repetitions 0.

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complet
e Reference')) number of repetitions 0.

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete R
eference')) number of repetitions 0.

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummie
s')) number of repetitions 0.

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Comple
te Reference')) number of repetitions 0.

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete
Reference')) number of repetitions 0.

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Referenc
e')) number of repetitions 0.

```


(('C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of r

epetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java

2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'Head First Java 2nd Edition', 'Java For Dummies',
'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'Head First Java 2nd Edition ', 'Java 8 Pocket Gui
de', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'Head First Java 2nd Edition ', 'Java 8 Pocket Gui
de', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'Head First Java 2nd Edition ', 'Java For Dummie
s', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java:
The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions
0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions
0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
```

ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.


```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming
```

in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete

Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

```
(( 'A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition
```


', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Step

```
s', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML
```

and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
```

```

s', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 P
ocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For
Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummie
s', 'Java: The Complete Reference')) number of repetitions 0.

(('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummie
s', 'Java: The Complete Reference')) number of repetitions 0.

(('C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head Firs
t Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The
Complete Reference')) number of repetitions 0.

(('HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition',
'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', '
Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2n
d Edition ') number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guid
e')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummie
s')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Head First Java 2nd Edition', 'Java: The Complete
Reference')) number of repetitions 0.

```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Gui
de')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummie
s')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Head First Java 2nd Edition ', 'Java: The Complet
e Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies')) number
of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Java 8 Pocket Guide', 'Java: The Complete Referen
ce')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Java For Dummies', 'Java: The Complete Referenc
e')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java
2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number
of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java
2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of
repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java
2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Referenc
e')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java
2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetiti
ons 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java
2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number
of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java
2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of
repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java
2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetit
ions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java
2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) numbe
r of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java
2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number o
f repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'Java 8 Pocket Gu
ide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetit
ions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head F
irst Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guid
e')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head F
irst Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies'))
number of repetitions 0.
```



```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head F
irst Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete
Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head F
irst Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number o
f repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head F
irst Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Referenc
e')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head F
irst Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference'))
number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head F
irst Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number
of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head F
irst Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Referenc
e')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head F
irst Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Referenc
e')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'HTML and CSS: Design and Build Websites', 'Java 8
Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number o
f repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2n
d Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitio
```

ns 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head Fir

```
st Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Referenc
e')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) n
umber of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of
repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Referenc
e')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference'))
number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 P
ocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of
repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd
Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions
0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd
Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of
repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd
Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of re
petitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
```

ramming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide')) number of repetitions 0.

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: De
```

sign and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website

s', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java


```
a', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Website
s', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Referenc
e')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head Fi
rst Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number o
f repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head Fi
rst Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Referenc
e')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head Fi
rst Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference'))
number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8
Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number o
f repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8
Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number o
f repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Editio
n', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummie
s')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Editio
n', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Comple
te Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Jav
a', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Editio
n', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete
Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2n
d Edition ', 'Java 8 Pocket Guide')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2n
d Edition ', 'Java For Dummies')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2n
d Edition ', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guid
e', 'Java For Dummies')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guid
e', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Head First Java 2nd Edition', 'Java For Dummies',
'Java: The Complete Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Gui
de', 'Java For Dummies')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Gui
de', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: De
sign and Build Websites', 'Head First Java 2nd Edition ', 'Java For Dummie
```

s', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

(('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head F

```
irst Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies',
'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head F
irst Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: Th
e Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head F
irst Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: T
he Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginnin
g Programming with Java', 'Head First Java 2nd Edition', 'Head First Java 2n
d Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete
Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide',
'Java For Dummies')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide',
'Java: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'J
ava: The Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The
Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
ramming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head Fir
st Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The
Complete Reference')) number of repetitions 0.
```

```
(( 'A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Prog
```

```
ramming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```


((('Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Beginning Programming with Java', 'C++ Programming in Easy Steps', 'HTML and CSS: Design and Build Websites', 'Head First Java 2nd Edition', 'Head First Java 2nd Edition ', 'Java 8 Pocket Guide', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions 0.
```

```
In [319... print('These are all the other frequent item sets:\n')
for combo_num, count in combo_counts.items():
    if (count / len(transaction) * 100) >= minsupport:
        print(f"({combinations[combo_num-1]}) number of repetitions: {count}")
```

These are all the other frequent item sets:

```
((('A Beginner's Guide', 'Android Programming: The Big Nerd Ranch', 'Java For Dummies', 'Java: The Complete Reference')) number of repetitions: 5 .
```

```
In [320... elapsed_time = time.time() - start_time
print("--- %s seconds ---" % (elapsed_time))

--- 0.4043700695037842 seconds ---
```

Appling Apriori Library

```
In [321... import csv
import pandas as pd
import time
from itertools import combinations
from apyori import apriori
from mlxtend.frequent_patterns import apriori, fpmax
from mlxtend.frequent_patterns import association_rules
from mlxtend.preprocessing import TransactionEncoder
```

```
In [322... #The below will allow us to read the file
def load_data(filename):
    full_transaction_list= []
    with open(filename, encoding = 'utf-8-sig') as data:
        transaction_data = csv.reader(data, delimiter = ',')
        for row in transaction_data:
            filtered_rows = [value for value in row if value != '']
            full_transaction_list.append(filtered_rows)
    return full_transaction_list
```

```
In [323... new_list = load_data(input('please enter file name\n\n'))

please enter file name

Transactions_1.csv
```

```
In [324... new_list
```

```
Out[324]: [['A Beginner's Guide',
'Java: The Complete Reference',
'Java For Dummies',
'Android Programming: The Big Nerd Ranch'],
['A Beginner's Guide', 'Java: The Complete Reference', 'Java For Dummie
s'],
['A Beginner's Guide',
'Java: The Complete Reference',
'Java For Dummies',
'Android Programming: The Big Nerd Ranch',
'Head First Java 2nd Edition'],
['Android Programming: The Big Nerd Ranch',
'Head First Java 2nd Edition ',
'Beginning Programming with Java'],
['Android Programming: The Big Nerd Ranch',
'Beginning Programming with Java',
'Java 8 Pocket Guide'],
['A Beginner's Guide',
'Android Programming: The Big Nerd Ranch',
'Head First Java 2nd Edition'],
['A Beginner's Guide',
'Head First Java 2nd Edition ',
'Beginning Programming with Java'],
['Java: The Complete Reference',
'Java For Dummies',
```

```

    'Android Programming: The Big Nerd Ranch'],
    ['Java For Dummies',
    'Android Programming: The Big Nerd Ranch',
    'Head First Java 2nd Edition',
    'Beginning Programming with Java'],
    ['Beginning Programming with Java',
    'Java 8 Pocket Guide',
    'C++ Programming in Easy Steps'],
    ['A Beginner's Guide',
    'Java: The Complete Reference',
    'Java For Dummies',
    'Android Programming: The Big Nerd Ranch'],
    ['A Beginner's Guide',
    'Java: The Complete Reference',
    'Java For Dummies',
    'HTML and CSS: Design and Build Websites'],
    ['A Beginner's Guide',
    'Java: The Complete Reference',
    'Java For Dummies',
    'Java 8 Pocket Guide',
    'HTML and CSS: Design and Build Websites'],
    ['Java For Dummies',
    'Android Programming: The Big Nerd Ranch',
    'Head First Java 2nd Edition'],
    ['Java For Dummies', 'Android Programming: The Big Nerd Ranch'],
    ['A Beginner's Guide',
    'Java: The Complete Reference',
    'Java For Dummies',
    'Android Programming: The Big Nerd Ranch'],
    ['A Beginner's Guide',
    'Java: The Complete Reference',
    'Java For Dummies',
    'Android Programming: The Big Nerd Ranch'],
    ['Head First Java 2nd Edition ',
    'Beginning Programming with Java',
    'Java 8 Pocket Guide'],
    ['Android Programming: The Big Nerd Ranch', 'Head First Java 2nd Editio
n'],
    ['A Beginner's Guide', 'Java: The Complete Reference', 'Java For Dummie
s']]

```

```

In [325... TranEn = TransactionEncoder()
TranEn_ary=TranEn.fit(new_list).transform(new_list)

```

```

In [326... Dataframe = pd.DataFrame(TranEn_ary, columns=TranEn.columns_)
Dataframe

```

Out [326]:

	A Beginner's Guide	Android Programming: The Big Nerd Ranch	Beginning Programming with Java	C++ Programming in Easy Steps	HTML and CSS: Design and Build Websites	Head First Java 2nd Edition	Head First Java 2nd Edition	Jav Poc Gu
0	True	True	False	False	False	False	False	Fa
1	True	False	False	False	False	False	False	Fa
2	True	True	False	False	False	True	False	Fa
3	False	True	True	False	False	False	True	Fa
4	False	True	True	False	False	False	False	T
5	True	True	False	False	False	True	False	Fa
6	True	False	True	False	False	False	True	Fa
7	False	True	False	False	False	False	False	Fa
8	False	True	True	False	False	True	False	Fa
9	False	False	True	True	False	False	False	T
10	True	True	False	False	False	False	False	Fa
11	True	False	False	False	True	False	False	Fa
12	True	False	False	False	True	False	False	T
13	False	True	False	False	False	True	False	Fa
14	False	True	False	False	False	False	False	Fa
15	True	True	False	False	False	False	False	Fa
16	True	True	False	False	False	False	False	Fa
17	False	False	True	False	False	False	True	T
18	False	True	False	False	False	True	False	Fa
19	True	False	False	False	False	False	False	Fa

In [327... frequentItemsets = apriori(Dataframe, min_support = 0.25, use_colnames=True)
frequentItemsets

Out [327]:

	support	itemsets
0	0.55	(A Beginner's Guide)
1	0.65	(Android Programming: The Big Nerd Ranch)
2	0.30	(Beginning Programming with Java)
3	0.25	(Head First Java 2nd Edition)
4	0.65	(Java For Dummies)
5	0.50	(Java: The Complete Reference)
6	0.30	(A Beginner's Guide, Android Programming: The ...)
7	0.45	(A Beginner's Guide, Java For Dummies)
8	0.45	(A Beginner's Guide, Java: The Complete Refere...)
9	0.25	(Android Programming: The Big Nerd Ranch, Head...)
10	0.45	(Android Programming: The Big Nerd Ranch, Java...)
11	0.30	(Android Programming: The Big Nerd Ranch, Java...)
12	0.50	(Java For Dummies, Java: The Complete Reference)
13	0.25	(A Beginner's Guide, Android Programming: The ...)
14	0.25	(A Beginner's Guide, Android Programming: The ...)
15	0.45	(A Beginner's Guide, Java For Dummies, Java: T...)
16	0.30	(Android Programming: The Big Nerd Ranch, Java...)
17	0.25	(A Beginner's Guide, Android Programming: The ...)

In [328]...

```
Rules = association_rules(frequentItemsets, metric="confidence", min_threshc
Rules
```

Out [328]:

	antecedents	consequents	antecedent support	consequent support	support	confidence	lift	le
0	(A Beginner's Guide)	(Java For Dummies)	0.55	0.65	0.45	0.818182	1.258741	
1	(A Beginner's Guide)	(Java: The Complete Reference)	0.55	0.50	0.45	0.818182	1.636364	
2	(Java: The Complete Reference)	(A Beginner's Guide)	0.50	0.55	0.45	0.900000	1.636364	
3	(Head First Java 2nd Edition)	(Android Programming: The Big Nerd Ranch)	0.25	0.65	0.25	1.000000	1.538462	

4	(Java For Dummies)	(Java: The Complete Reference)	0.65	0.50	0.50	0.769231	1.538462
5	(Java: The Complete Reference)	(Java For Dummies)	0.50	0.65	0.50	1.000000	1.538462
6	(A Beginner's Guide, Android Programming: The ...)	(Java For Dummies)	0.30	0.65	0.25	0.833333	1.282051
7	(A Beginner's Guide, Android Programming: The ...)	(Java: The Complete Reference)	0.30	0.50	0.25	0.833333	1.666667
8	(Android Programming: The Big Nerd Ranch, Java...)	(A Beginner's Guide)	0.30	0.55	0.25	0.833333	1.515152
9	(A Beginner's Guide, Java For Dummies)	(Java: The Complete Reference)	0.45	0.50	0.45	1.000000	2.000000
10	(A Beginner's Guide, Java: The Complete Refere...)	(Java For Dummies)	0.45	0.65	0.45	1.000000	1.538462
11	(Java For Dummies, Java: The Complete Reference)	(A Beginner's Guide)	0.50	0.55	0.45	0.900000	1.636364
12	(A Beginner's Guide)	(Java For Dummies, Java: The Complete Reference)	0.55	0.50	0.45	0.818182	1.636364
13	(Java: The Complete Reference)	(A Beginner's Guide, Java For Dummies)	0.50	0.45	0.45	0.900000	2.000000
14	(Android Programming: The Big Nerd Ranch, Java...)	(Java For Dummies)	0.30	0.65	0.30	1.000000	1.538462
15	(A Beginner's Guide, Android)	(Java: The Complete)	0.25	0.50	0.25	1.000000	2.000000

	Programming: The ...	Reference)					
16	(A Beginner's Guide, Android Programming: The ...	(Java For Dummies)	0.25	0.65	0.25	1.000000	1.538462
17	(Android Programming: The Big Nerd Ranch, Java...	(A Beginner's Guide)	0.30	0.55	0.25	0.833333	1.515152
18	(A Beginner's Guide, Android Programming: The ...	(Java For Dummies, Java: The Complete Reference)	0.30	0.50	0.25	0.833333	1.666667
19	(Android Programming: The Big Nerd Ranch, Java...	(A Beginner's Guide, Java For Dummies)	0.30	0.45	0.25	0.833333	1.851852

Conclusion

In conclusion, for the Frist transaction, it was very noticable how faster Apriori (time: 0.08064889907836914 seconds) was compared to brute force method (Time: 0.4043700695037842 seconds). Also, by using an existing library, I was able to compare the results to my implementation and they both had the same number of Rules meaning that the implementation was working correctly. Also, by implementing the brute force method, I was able to see that the One, two, and three itemsets matched to ones from the apriori implementation meaning that the Brute Force even though it took more time, it returned the same results as the Apriori Algorithm

In []: