

# Credit Card Fraud Detection

## Context

It is important that credit card companies are able to recognize fraudulent credit card transactions so that customers are not charged for items that they did not purchase.

## Content

The datasets contains transactions made by credit cards in September 2013 by european cardholders. This dataset presents transactions that occurred in two days, where we have 492 frauds out of 284,807 transactions. The dataset is highly unbalanced, the positive class (frauds) account for 0.172% of all transactions.

It contains only numerical input variables which are the result of a PCA transformation. Unfortunately, due to confidentiality issues, we cannot provide the original features and more background information about the data. Features V1, V2, ... V28 are the principal components obtained with PCA, the only features which have not been transformed with PCA are 'Time' and 'Amount'. Feature 'Time' contains the seconds elapsed between each transaction and the first transaction in the dataset. The feature 'Amount' is the transaction Amount, this feature can be used for example-dependant cost-sensitive learning. Feature 'Class' is the response variable and it takes value 1 in case of fraud and 0 otherwise.

Dataset Link <https://www.kaggle.com/mlg-ulb/creditcardfraud/data>



In [13]:

```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

```
import seaborn as sns
```

In [14]:

```
df = pd.read_csv("creditcard.csv")
df.head()
```

Out[14]:

	Time	V1	V2	V3	V4	V5	V6	V7	V8	
0	0.0	-1.359807	-0.072781	2.536347	1.378155	-0.338321	0.462388	0.239599	0.098698	0.3635
1	0.0	1.191857	0.266151	0.166480	0.448154	0.060018	-0.082361	-0.078803	0.085102	-0.2554
2	1.0	-1.358354	-1.340163	1.773209	0.379780	-0.503198	1.800499	0.791461	0.247676	-1.5146
3	1.0	-0.966272	-0.185226	1.792993	-0.863291	-0.010309	1.247203	0.237609	0.377436	-1.3870
4	2.0	-1.158233	0.877737	1.548718	0.403034	-0.407193	0.095921	0.592941	-0.270533	0.8175

5 rows × 31 columns



In [15]:

```
df.tail()
```

Out[15]:

	Time	V1	V2	V3	V4	V5	V6	V7	
284802	172786.0	-11.881118	10.071785	-9.834783	-2.066656	-5.364473	-2.606837	-4.918215	7.30
284803	172787.0	-0.732789	-0.055080	2.035030	-0.738589	0.868229	1.058415	0.024330	0.29
284804	172788.0	1.919565	-0.301254	-3.249640	-0.557828	2.630515	3.031260	-0.296827	0.70
284805	172788.0	-0.240440	0.530483	0.702510	0.689799	-0.377961	0.623708	-0.686180	0.67
284806	172792.0	-0.533413	-0.189733	0.703337	-0.506271	-0.012546	-0.649617	1.577006	-0.41

5 rows × 31 columns



In [16]:

```
df.shape
```

Out[16]:

(284807, 31)

In [33]:

```
#For value counts of both the classes
x = df['Class'].value_counts(normalize=True)
print("Value Counts:")
print(x)
y = df.shape
fraudper = (x[1]/y[0])*100
print(fraudper,"% of fraud points only")
```

```
Value Counts:
0    0.998273
1    0.001727
Name: Class, dtype: float64
6.06546057723e-07 % of fraud points only
```

### Extremely Unbalanced Dataset

In [18]:

```
df.describe()
```

Out[18]:

	Time	V1	V2	V3	V4	V5
count	284807.000000	2.848070e+05	2.848070e+05	2.848070e+05	2.848070e+05	2.848070e+05
mean	94813.859575	3.919560e-15	5.688174e-16	-8.769071e-15	2.782312e-15	-1.552563e-15
std	47488.145955	1.958696e+00	1.651309e+00	1.516255e+00	1.415869e+00	1.380247e+00
min	0.000000	-5.640751e+01	-7.271573e+01	-4.832559e+01	-5.683171e+00	-1.137433e+01
25%	54201.500000	-9.203734e-01	-5.985499e-01	-8.903648e-01	-8.486401e-01	-6.915971e-01
50%	84692.000000	1.810880e-02	6.548556e-02	1.798463e-01	-1.984653e-02	-5.433583e-02
75%	139320.500000	1.315642e+00	8.037239e-01	1.027196e+00	7.433413e-01	6.119264e-01
max	172792.000000	2.454930e+00	2.205773e+01	9.382558e+00	1.687534e+01	3.480167e+00

8 rows × 31 columns



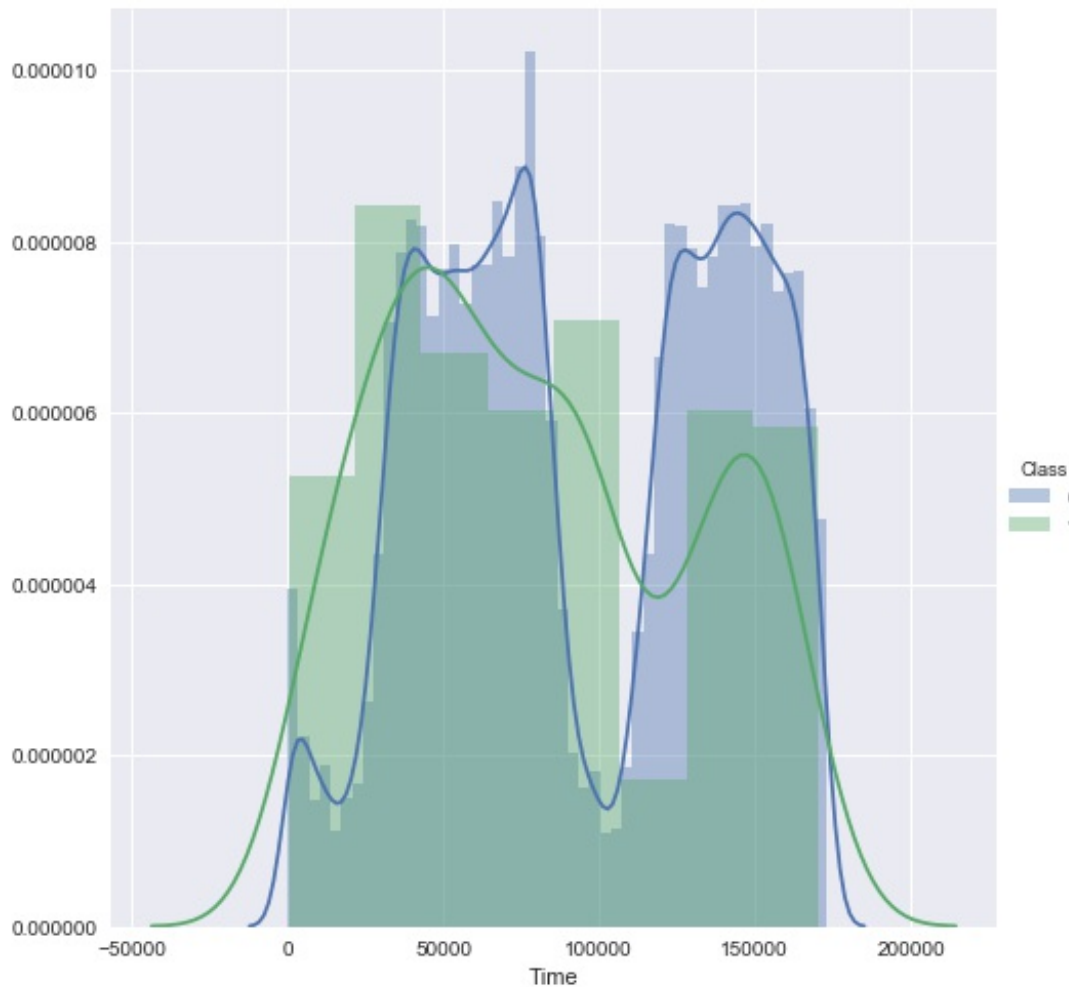
Dataset has all numerical features of which amount and time is given rest all 28 features are anonymized Principal Components transformed using PCA. The output class can be either 1(in case of fraud) and otherwise 0.

In [19]:

```
#Plotting according to Amount
(sns.FacetGrid(df,hue="Class",size=7)
.map(sns.distplot,"Time"))
```

```
.map(Sns.distplot, 'Time')
.add_legend())

plt.show()
```

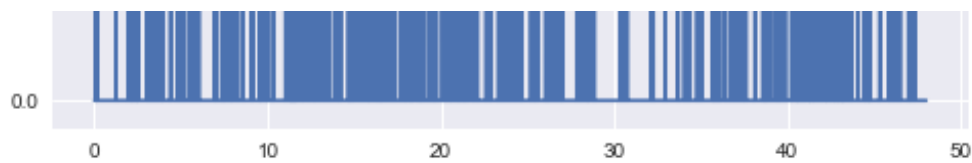


Using time we can't distinguish and find the fraudulent transactions as it happens anytime of the day

In [20]:

```
def sectohours(sec):
    hours = sec/(60*60)
    return hours
hours = sectohours(df['Time'])
plt.plot(hours,df['Class'])
plt.show()
```

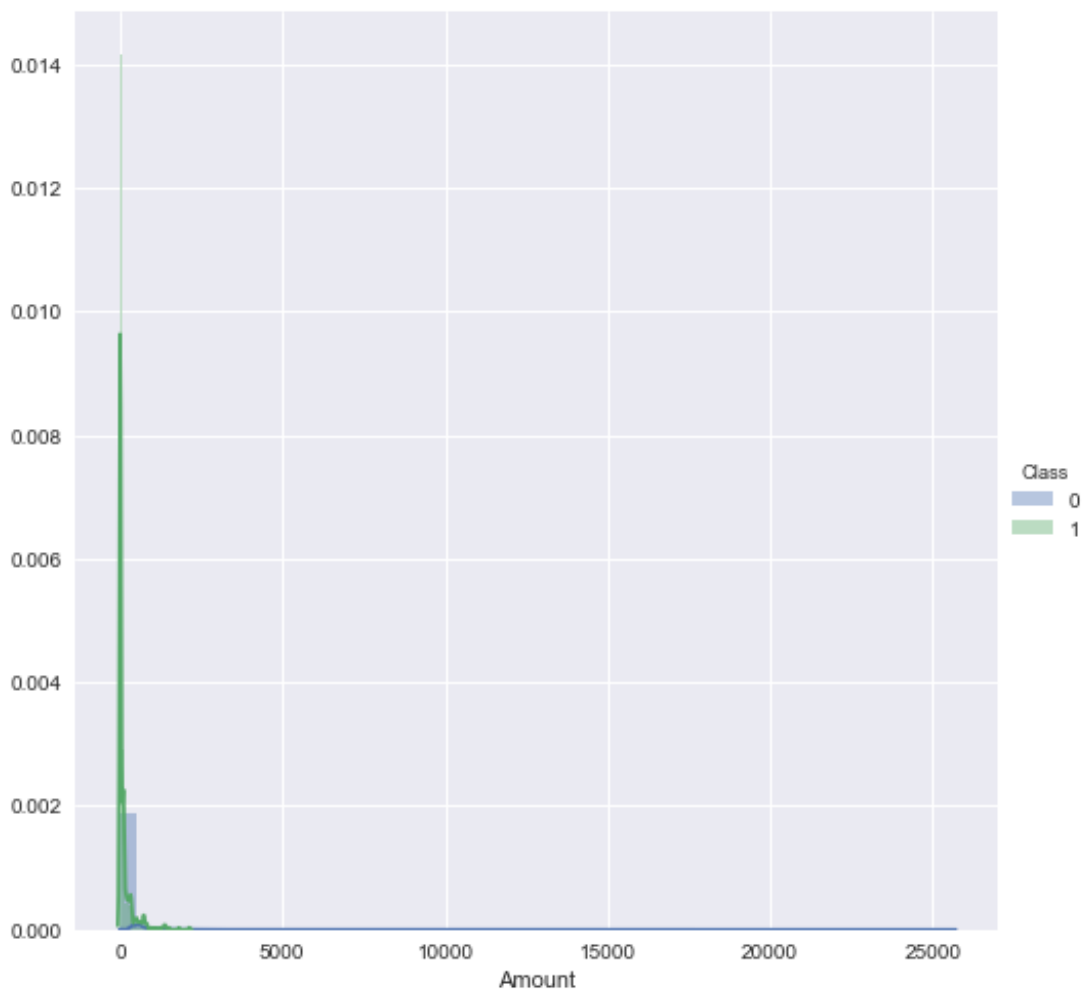




Frauds happened between all the hours and most of them did not happen at a particular time

In [21]:

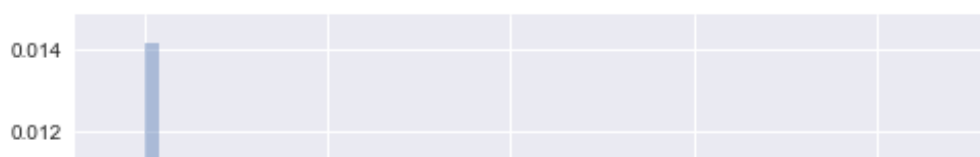
```
#Plotting according to Amount
(sns.FacetGrid(df,hue="Class",size=7)
 .map(sns.distplot,"Amount")
 .add_legend())
plt.show()
```

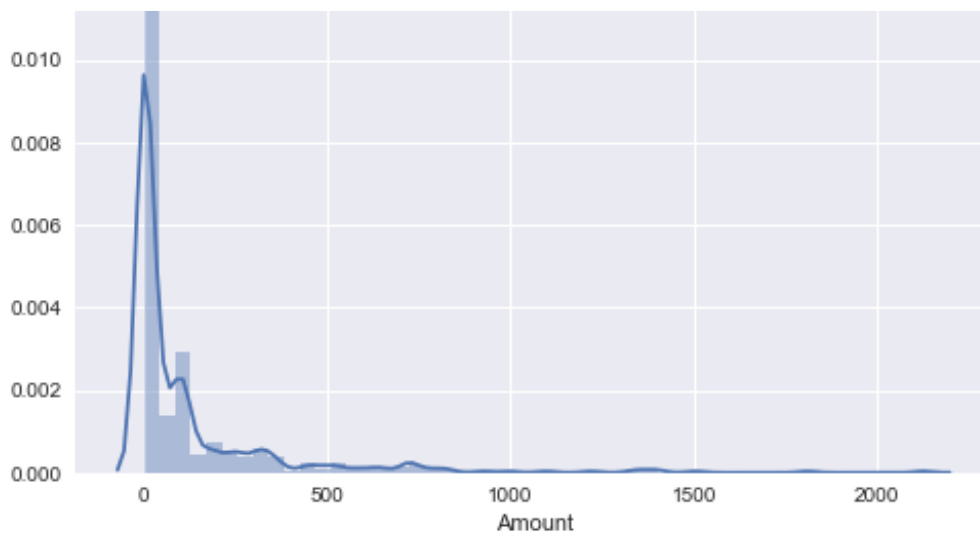


Most of the transactions are below 2000 dollars for both fraud and normal transactions

In [34]:

```
fraud=df.loc[df["Class"]==1]
normal=df.loc[df["Class"]==0]
sns.distplot(fraud.Amount)
plt.show()
```

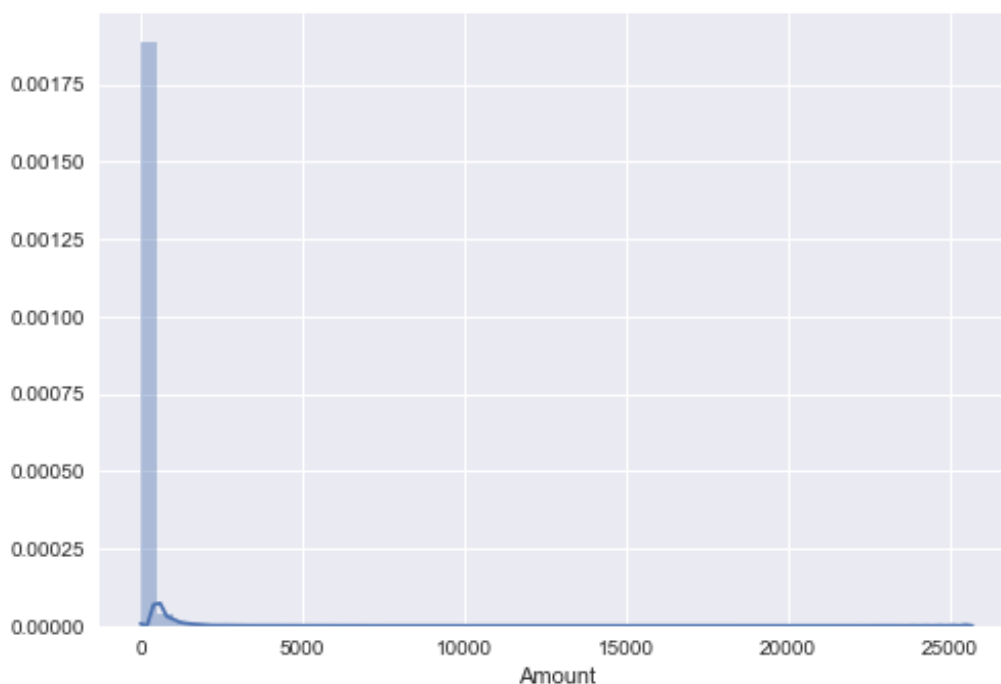




All of the fraud transactions are below 2400 dollars and Most of them are below 500\$

In [35]:

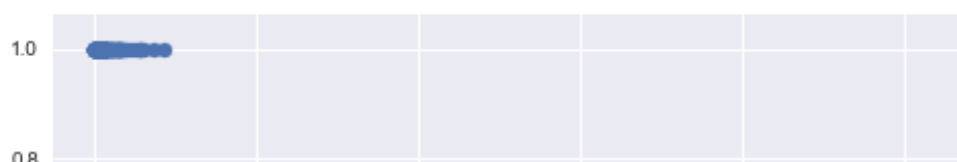
```
sns.distplot(normal.Amount)
plt.show()
```

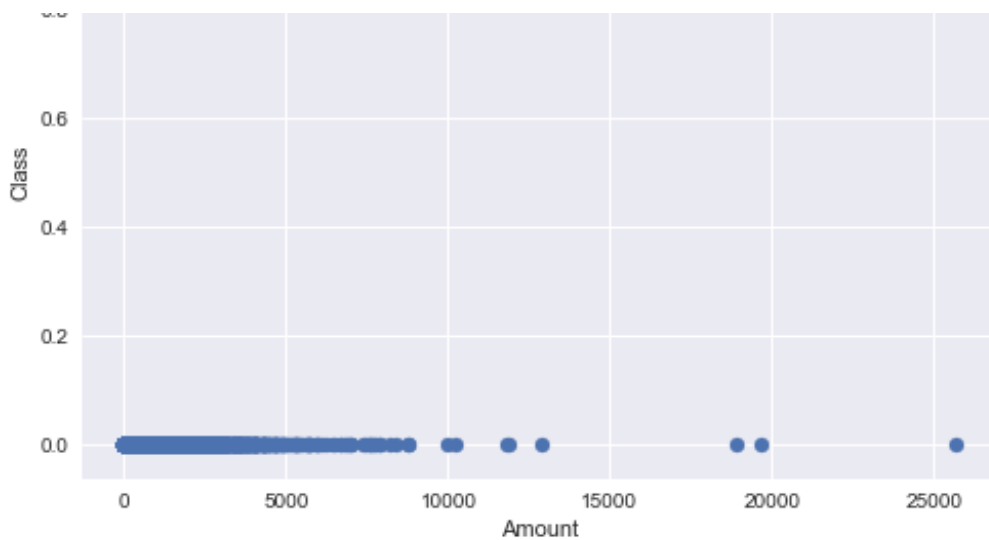


We can observe that normal transactions are bit more spread than the fraud transactions in terms of amount and the non-fraud transactions mostly below 1000\$

In [40]:

```
plt.scatter(df['Amount'], df['Class'])
plt.xlabel("Amount")
plt.ylabel("Class")
plt.show()
```



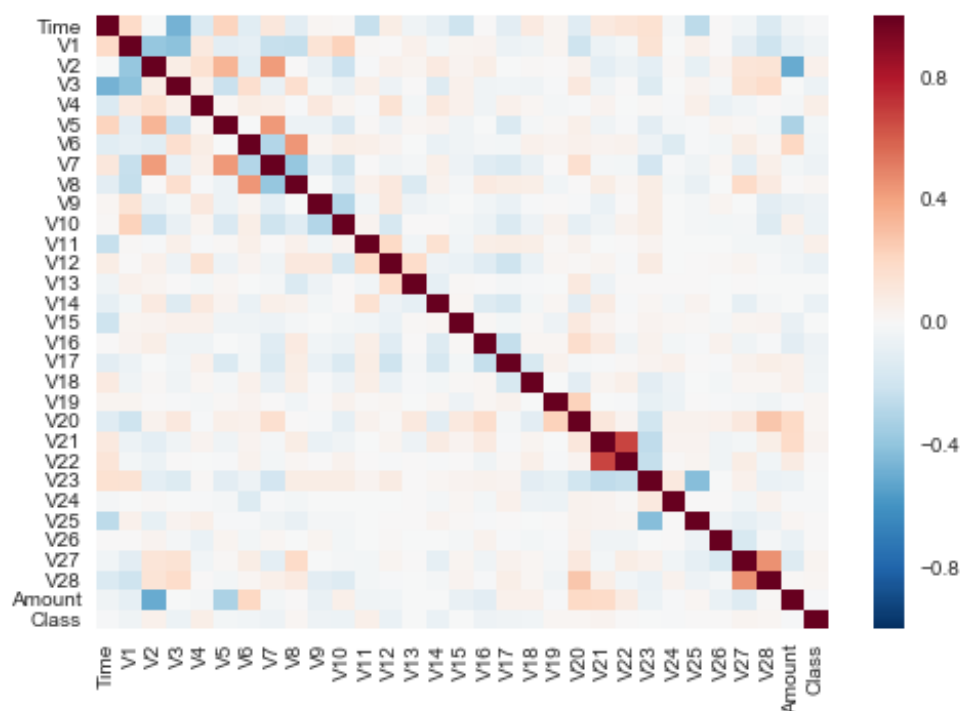


From the scatter plot we can observe that only few points in normal transactions are above 10,000\$

### Correlation between features

In [38]:

```
#Using Spearman Correlation Coefficient to see how much the features are c
o-related to each other
ax = sns.heatmap(df.corr(method='spearman'))
plt.show()
```



It seems the features are quite not related to each other as no points are dark orange and very few are light orange which means few slightly related

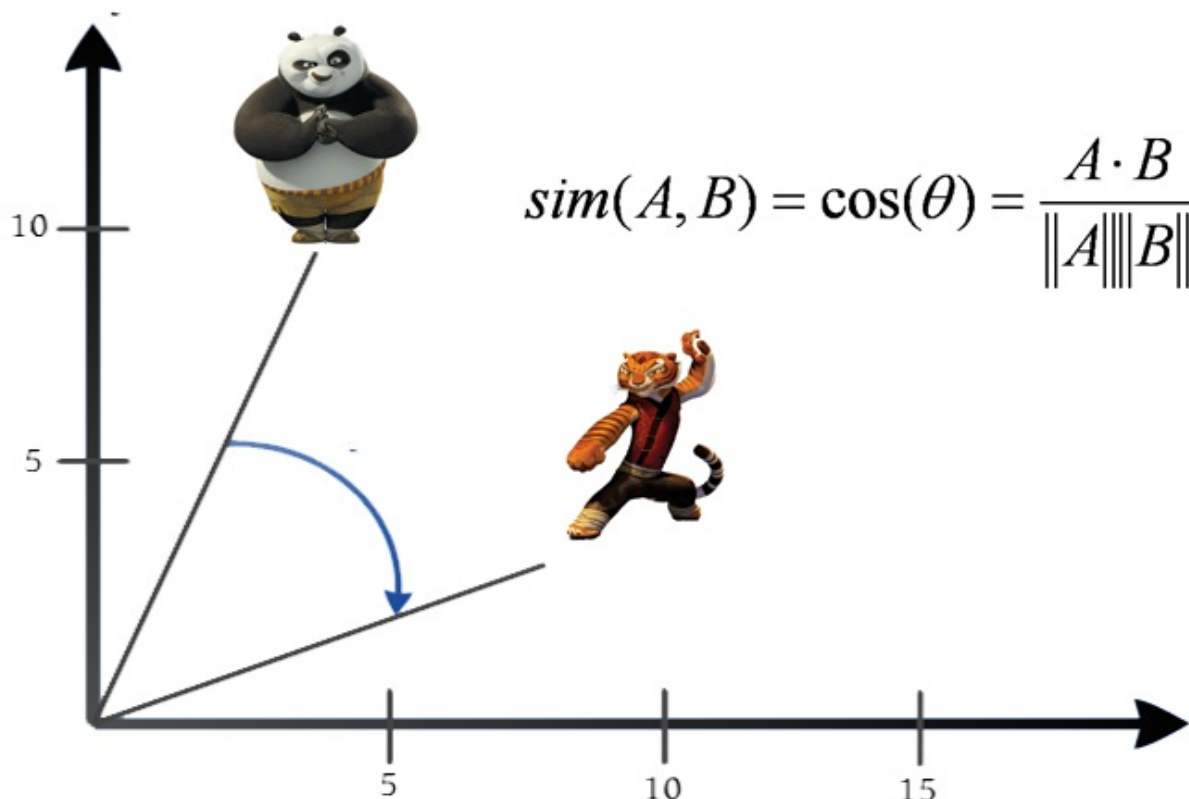
## Task 2 (Similarity between transactions)

As the defined metric is cosine similarity

$$\text{similarity}(i, j) = \cos^{-1}(\text{dot product}(v_i, v_j) / (\text{length}(v_i) * \text{length}(v_j)))$$

similarity(A, B) = cosine = (dot product(A, B)) / (length(A) \* length(B))

## Cosine Similarity



In [89]:

```
#Sampling 100 random datapoints/rows from the table
sample100 = df.sample(100)
sample100.shape
```

Out [89]:

(100, 31)

In [94]:

```
sample100.head()
```

Out [94]:

	Time	V1	V2	V3	V4	V5	V6	V7	
188683	128084.0	-0.987732	0.829048	-0.278654	-0.658676	0.718651	-0.724522	0.639614	0.4053
265071	161725.0	0.139373	1.019850	-0.423320	-0.555768	0.941496	-0.732687	0.962232	-0.0787
237144	149119.0	-0.700779	-0.873922	1.201566	-2.915576	0.088651	0.039793	-0.230744	-0.0325
32509	36831.0	1.329336	-0.776614	0.857839	-0.808990	-1.329647	-0.218506	-1.135750	0.1155



215209	Time	V1	V2	V3	V4	V5	V6	V7	
	139975.0	0.306139	0.393265	0.458180	2.074616	1.260777	0.375036	1.076943	0.2267

5 rows × 31 columns

In [102]:

```
#Indexes of the 100 sampled data values
sample100.index
```

Out[102]:

```
Int64Index([188683, 265071, 237144, 32509, 215209, 118344, 40494, 130317,
            66630, 188565, 262849, 70036, 226918, 280775, 150474, 221937,
            283261, 98197, 51068, 169994, 193261, 31405, 18411, 211841,
            178302, 19151, 219387, 263690, 135458, 106668, 114354, 54997,
            176946, 159680, 22093, 14436, 175445, 229757, 193039, 206114,
            131336, 192003, 252739, 136128, 62510, 189740, 243797, 24128,
            107141, 78808, 157068, 178714, 184081, 150939, 36672, 228181,
            178762, 9354, 261118, 64881, 179261, 56198, 74617, 267183,
            78371, 81645, 278461, 83762, 198086, 210356, 96707, 237323,
            223671, 78567, 208406, 82731, 269968, 56350, 53421, 127328,
            110943, 166768, 82236, 153129, 104065, 12547, 243484, 133458,
            122824, 23095, 215325, 216983, 205292, 266614, 20224, 74323,
            156470, 194364, 195244, 118755],
            dtype='int64')
```

In [91]:

```
#importing cosine similarity to calculate cosine similarity of each data po
int with the every other datapoint
from sklearn.metrics.pairwise import cosine_similarity
similar = cosine_similarity(sample100)
print(similar.shape)
```

(100, 100)

In [96]:

```
#Cosine Similarity Matrix
print(similar)
```

```
[[ 1.          0.99999993  0.99999997 ...,  0.99999998  0.99997891
    0.99999999]
 [ 0.99999993  1.          0.99999999 ...,  0.99999998  0.99997651
    0.99999987]
 [ 0.99999997  0.99999999  1.          ...,  1.          0.99997744
    0.99999993]
 ...,
 [ 0.99999998  0.99999998  1.          ...,  1.          0.99997775
    0.99999995]
 [ 0.99997891  0.99997651  0.99997744 ...,  0.99997775  1.          0.99997982]
 ...,
 [ 0.99999999  0.99999987  0.99999993 ...,  0.99999995  0.99997982  1.
    0.99999999]
 ...]
```

In [157]:

```
similar.shape
```

Out[157]:

(100, 100)

In [93]:

```
similar.min()
```

Out[93]:

0.99829552221692508

In [160]:

```
similarity_arr = []
#zip to iterate through to arrays parallelly
for trans_array, head in zip(similar, sample100.index):
    l = []
    #trans_array is the list with similarity values of all points w.r.t. head
    #Making a tuple as (transaction_id, similarity with head)
    for trans_elt, index in zip(trans_array, sample100.index):
        l.append((index, trans_elt))

    #Sort the transactions according to the similarity(ascending order)
    new_list = sorted(l, key=lambda x: x[1])
    #Creating a tuple (head, list of tuple of (transaction_id, similarity with head))
    similarity_arr.append((head, new_list))

similarity_arr[:2]
```

Out[160]:

```
[(188683,
  [(12547, 0.99831796694053521),
   (54997, 0.99950694023604481),
   (51068, 0.9999117661085376),
   (9354, 0.99991284391925817),
   (70036, 0.9999286701745923),
   (195244, 0.99997891329255273),
   (31405, 0.99997915123851),
   (40494, 0.99998306735176412),
   (269968, 0.99999128511027457),
   (78371, 0.99999179779641367),
   (20224, 0.99999345495829395),
   (159680, 0.99999513103373139),
   (64881, 0.99999590326008481),
   (22093, 0.99999675749470507),
   (127328, 0.99999795981556228),
   (178714, 0.99999821498119923),
   (98197, 0.99999823764887474),
   (169994, 0.99999890153970505),
   (211841, 0.9999992175713377),
   (24128, 0.99999926169661013),
   (82731, 0.99999950198770593),
   (229757, 0.99999963561337646),
   (14436, 0.99999967670473155),
   (81645, 0.99999968246715709),
   (198086, 0.99999968862503708),
   (53421, 0.99999975169860178),
   (215225, 0.99999976552221692508),
   (100, 100)])])
```

(215325, 0.999999/9552206208),  
(18411, 0.99999981139672312),  
(110943, 0.99999982121969311),  
(267183, 0.99999982398918852),  
(19151, 0.99999983172818752),  
(83762, 0.99999985877296604),  
(82236, 0.99999987565419945),  
(107141, 0.99999989199445172),  
(178762, 0.9999999126603929),  
(156470, 0.9999999231059612),  
(278461, 0.99999992481191813),  
(243797, 0.99999992528087556),  
(208406, 0.99999992567759233),  
(178302, 0.99999992596833409),  
(228181, 0.99999992603955501),  
(184081, 0.99999992605889187),  
(23095, 0.99999992639004609),  
(175445, 0.99999992681530336),  
(206114, 0.99999992962625284),  
(157068, 0.99999992984938779),  
(237323, 0.99999993028179912),  
(133458, 0.99999993207599391),  
(114354, 0.99999993260159892),  
(104065, 0.99999993341355664),  
(215209, 0.99999993403778142),  
(150939, 0.99999993405197518),  
(265071, 0.99999993488140848),  
(122824, 0.99999993725731262),  
(210356, 0.99999994263282643),  
(36672, 0.99999994528465663),  
(166768, 0.99999994931974034),  
(193039, 0.99999994947282911),  
(62510, 0.99999995013969989),  
(188565, 0.99999995015066312),  
(32509, 0.99999995134811048),  
(118344, 0.99999995240292638),  
(56198, 0.99999995304801426),  
(216983, 0.99999995783648665),  
(176946, 0.99999995940820752),  
(266614, 0.99999995967694411),  
(243484, 0.9999999650147865),  
(153129, 0.99999996553512871),  
(252739, 0.99999996732848206),  
(74617, 0.99999996798369428),  
(74323, 0.99999997332731705),  
(283261, 0.9999999743238368),  
(237144, 0.99999997437229471),  
(78808, 0.9999999746097995),  
(179261, 0.99999997486120762),  
(66630, 0.99999997644430161),  
(135458, 0.99999997709121602),  
(106668, 0.99999998004925605),  
(263690, 0.99999998167745463),  
(226918, 0.99999998237212229),  
(221937, 0.99999998271878243),  
(194364, 0.99999998347229291),  
(136128, 0.99999998699698045),  
(118755, 0.99999998828846159),  
(78567, 0.99999998932933709),  
(131336, 0.99999999155814845),  
156350 0 0000000000018720000

(38330, 0.99999999201872909),  
(189740, 0.99999999218343649),  
(193261, 0.99999999382813398),  
(150474, 0.99999999432694431),  
(96707, 0.99999999435617126),  
(262849, 0.9999999944362491),  
(261118, 0.99999999466456169),  
(192003, 0.99999999542633089),  
(130317, 0.99999999619255497),  
(219387, 0.99999999720463573),  
(223671, 0.99999999724550692),  
(280775, 0.99999999764704284),  
(205292, 0.99999999920745652),  
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(70036, 0.99992430148384037),  
(195244, 0.99997650888280898),  
(31405, 0.99997676011950598),  
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(64881, 0.99999480766185944),  
(22093, 0.99999577702033016),  
(127328, 0.99999716759541757),  
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(98197, 0.99999749623845136),  
(169994, 0.99999830322372252),  
(211841, 0.9999987024178858),  
(24128, 0.99999876370326324),  
(82731, 0.99999907853624381),  
(229757, 0.99999926427786801),  
(14436, 0.9999993258816674),  
(81645, 0.99999933128888852),  
(198086, 0.99999934040348781),  
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(215325, 0.99999950112684621),  
(18411, 0.99999953264235031),  
(110943, 0.99999954261350565),  
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(83762, 0.9999996058437054),  
(82236, 0.99999963537053127),  
(107141, 0.99999966128469375),  
(178762, 0.99999969782309517),  
(228181, 0.99999972408462745),  
(32509, 0.99999978343593632),  
(74617, 0.99999981782661285),  
(179261, 0.99999983015181348),  
(118755, 0.99999987307045901),  
(78567, 0.99999987721184969),  
(131336, 0.99999988415050811),  
(56350, 0.99999988896071201),  
(261118, 0.99999989609506357),  
(219387, 0.99999991061742577),  
(223671, 0.99999991068505167).

```
(220071, 0.99999991000000107),
(205292, 0.99999992654059278),
(188683, 0.99999993488140848),
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(280775, 0.99999995286320009),
(150474, 0.99999996013237591),
(96707, 0.99999996024690851),
(192003, 0.99999996131274671),
(262849, 0.99999996545886038),
(193261, 0.99999996747223385),
(189740, 0.99999997021212994),
(136128, 0.99999997486835701),
(106668, 0.99999998246082833),
(194364, 0.99999998267978985),
(221937, 0.99999998321095052),
(66630, 0.99999998334571083),
(226918, 0.99999998393390743),
(74323, 0.99999998397010825),
(263690, 0.9999999840234125),
(135458, 0.99999998552536551),
(78808, 0.99999998853993988),
(237144, 0.99999998975061766),
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(23095, 0.99999999345851587),
(153129, 0.99999999348550117),
(252739, 0.99999999392695438),
(56198, 0.9999999943888177),
(243484, 0.99999999493400105),
(118344, 0.99999999496057379),
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(216983, 0.99999999643606796),
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(62510, 0.99999999759527525),
(193039, 0.99999999810415929),
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(278461, 0.99999999890164271),
(114354, 0.99999999897833902),
(178302, 0.99999999906583115),
(208406, 0.99999999913595938),
(210356, 0.99999999919906846),
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(184081, 0.9999999993210974),
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(133458, 0.99999999933952177),
(243797, 0.99999999942124562),
(122824, 0.99999999944823181),
(206114, 0.99999999963764008),
(215209, 0.99999999967212938),
(237323, 0.99999999984531829),
(265071, 1.0)]])
```

In [155]:

```
#Printing the top 10 least similar transactions with respect to each transac
tion.
for trans in similarityv arr:
```

```

print("-----")
print("Given transactions id=",trans[0],"Class:",int(sample100.loc[trans[0]].Class))
print("-----")
print("Similar Transactions:")
print("-----")
for elt in trans[1][:10]:
    print("Transaction
id:=",elt[0],"Similarity:",elt[1],"Class:",int(sample100.loc[elt[0]].Class)
)
    print("\n")

```

```

-----
Given transactions id= 188683 Class: 0
-----

```

```

Similar Transactions:
-----

```

```

Transaction id:= 12547 Similarity: 0.998317966941 Class: 0
Transaction id:= 54997 Similarity: 0.999506940236 Class: 0
Transaction id:= 51068 Similarity: 0.999911766109 Class: 0
Transaction id:= 9354 Similarity: 0.999912843919 Class: 0
Transaction id:= 70036 Similarity: 0.999928670175 Class: 0
Transaction id:= 195244 Similarity: 0.999978913293 Class: 0
Transaction id:= 31405 Similarity: 0.999979151239 Class: 0
Transaction id:= 40494 Similarity: 0.999983067352 Class: 0
Transaction id:= 269968 Similarity: 0.99999128511 Class: 0
Transaction id:= 78371 Similarity: 0.999991797796 Class: 0

```

```

-----
Given transactions id= 265071 Class: 0
-----

```

```

Similar Transactions:
-----

```

```

Transaction id:= 12547 Similarity: 0.998297012638 Class: 0
Transaction id:= 54997 Similarity: 0.999495561868 Class: 0
Transaction id:= 51068 Similarity: 0.999906915309 Class: 0
Transaction id:= 9354 Similarity: 0.999908025805 Class: 0
Transaction id:= 70036 Similarity: 0.999924301484 Class: 0
Transaction id:= 195244 Similarity: 0.999976508883 Class: 0
Transaction id:= 31405 Similarity: 0.99997676012 Class: 0
Transaction id:= 40494 Similarity: 0.999980905543 Class: 0
Transaction id:= 269968 Similarity: 0.999989716403 Class: 0
Transaction id:= 78371 Similarity: 0.999990274937 Class: 0

```

```

-----
Given transactions id= 237144 Class: 0
-----

```

```

Similar Transactions:
-----

```

```

Transaction id:= 12547 Similarity: 0.998305030186 Class: 0
Transaction id:= 54997 Similarity: 0.999499923132 Class: 0
Transaction id:= 51068 Similarity: 0.999908783531 Class: 0
Transaction id:= 9354 Similarity: 0.999909885994 Class: 0
Transaction id:= 70036 Similarity: 0.999925984701 Class: 0
Transaction id:= 195244 Similarity: 0.999977441728 Class: 0
Transaction id:= 31405 Similarity: 0.999977688499 Class: 0
Transaction id:= 40494 Similarity: 0.99998174617 Class: 0
Transaction id:= 269968 Similarity: 0.999990330511 Class: 0

```

Transaction id:= 78371 Similarity: 0.99999087215 Class: 0

-----  
Given transactions id= 32509 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998334625784 Class: 0  
Transaction id:= 54997 Similarity: 0.999515942877 Class: 0  
Transaction id:= 51068 Similarity: 0.999915546018 Class: 0  
Transaction id:= 9354 Similarity: 0.999916612903 Class: 0  
Transaction id:= 70036 Similarity: 0.999932057565 Class: 0  
Transaction id:= 195244 Similarity: 0.999980736537 Class: 0  
Transaction id:= 31405 Similarity: 0.999980963887 Class: 0  
Transaction id:= 40494 Similarity: 0.99998469965 Class: 0  
Transaction id:= 269968 Similarity: 0.999992440847 Class: 0  
Transaction id:= 78371 Similarity: 0.999992918393 Class: 0

-----  
Given transactions id= 215209 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998296926674 Class: 0  
Transaction id:= 54997 Similarity: 0.999495514734 Class: 0  
Transaction id:= 51068 Similarity: 0.999906894615 Class: 0  
Transaction id:= 9354 Similarity: 0.999908005794 Class: 0  
Transaction id:= 70036 Similarity: 0.999924283898 Class: 0  
Transaction id:= 195244 Similarity: 0.999976498484 Class: 0  
Transaction id:= 31405 Similarity: 0.999976750787 Class: 0  
Transaction id:= 40494 Similarity: 0.999980896414 Class: 0  
Transaction id:= 269968 Similarity: 0.999989709414 Class: 0  
Transaction id:= 78371 Similarity: 0.999990268382 Class: 0

-----  
Given transactions id= 118344 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998300692848 Class: 0  
Transaction id:= 54997 Similarity: 0.999497563053 Class: 0  
Transaction id:= 51068 Similarity: 0.999907773858 Class: 0  
Transaction id:= 9354 Similarity: 0.999908891213 Class: 0  
Transaction id:= 70036 Similarity: 0.999925069942 Class: 0  
Transaction id:= 195244 Similarity: 0.999976936337 Class: 0  
Transaction id:= 31405 Similarity: 0.99997718399 Class: 0  
Transaction id:= 40494 Similarity: 0.999981293472 Class: 0  
Transaction id:= 269968 Similarity: 0.999989998278 Class: 0  
Transaction id:= 78371 Similarity: 0.999990551512 Class: 0

-----  
Given transactions id= 40494 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998638393015 Class: 0  
Transaction id:= 54997 Similarity: 0.99967333171 Class: 0

Transaction id:= 54997 Similarity: 0.999672708174 Class: 0  
Transaction id:= 51068 Similarity: 0.999972122435 Class: 0  
Transaction id:= 9354 Similarity: 0.999972704017 Class: 0  
Transaction id:= 278461 Similarity: 0.999980745109 Class: 0  
Transaction id:= 243797 Similarity: 0.999980756074 Class: 0  
Transaction id:= 208406 Similarity: 0.999980765943 Class: 0  
Transaction id:= 156470 Similarity: 0.999980766804 Class: 0  
Transaction id:= 184081 Similarity: 0.999980768374 Class: 0  
Transaction id:= 178302 Similarity: 0.999980771498 Class: 0

-----  
Given transactions id= 130317 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998316047494 Class: 0  
Transaction id:= 54997 Similarity: 0.999505896093 Class: 0  
Transaction id:= 51068 Similarity: 0.99991132142 Class: 0  
Transaction id:= 9354 Similarity: 0.99991239984 Class: 0  
Transaction id:= 70036 Similarity: 0.99992826881 Class: 0  
Transaction id:= 195244 Similarity: 0.99997869429 Class: 0  
Transaction id:= 31405 Similarity: 0.99997893356 Class: 0  
Transaction id:= 40494 Similarity: 0.999982870084 Class: 0  
Transaction id:= 269968 Similarity: 0.999991142666 Class: 0  
Transaction id:= 78371 Similarity: 0.999991661643 Class: 0

-----  
Given transactions id= 66630 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998306366384 Class: 0  
Transaction id:= 54997 Similarity: 0.999500644263 Class: 0  
Transaction id:= 51068 Similarity: 0.999909091532 Class: 0  
Transaction id:= 9354 Similarity: 0.999910179966 Class: 0  
Transaction id:= 70036 Similarity: 0.999926257351 Class: 0  
Transaction id:= 195244 Similarity: 0.999977593317 Class: 0  
Transaction id:= 31405 Similarity: 0.999977835826 Class: 0  
Transaction id:= 40494 Similarity: 0.999981881787 Class: 0  
Transaction id:= 269968 Similarity: 0.999990426987 Class: 0  
Transaction id:= 78371 Similarity: 0.999990966486 Class: 0

-----  
Given transactions id= 188565 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998299816795 Class: 0  
Transaction id:= 54997 Similarity: 0.999497086597 Class: 0  
Transaction id:= 51068 Similarity: 0.999907568974 Class: 0  
Transaction id:= 9354 Similarity: 0.999908680534 Class: 0  
Transaction id:= 70036 Similarity: 0.999924889763 Class: 0  
Transaction id:= 195244 Similarity: 0.999976836633 Class: 0  
Transaction id:= 31405 Similarity: 0.99997708569 Class: 0  
Transaction id:= 40494 Similarity: 0.999981202547 Class: 0  
Transaction id:= 269968 Similarity: 0.999989933044 Class: 0  
Transaction id:= 78371 Similarity: 0.999990485958 Class: 0



-----  
Given transactions id= 262849 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998312221817 Class: 0  
Transaction id:= 54997 Similarity: 0.999503825504 Class: 0  
Transaction id:= 51068 Similarity: 0.999910446057 Class: 0  
Transaction id:= 9354 Similarity: 0.999911533504 Class: 0  
Transaction id:= 70036 Similarity: 0.999927481886 Class: 0  
Transaction id:= 195244 Similarity: 0.9999782654 Class: 0  
Transaction id:= 31405 Similarity: 0.99997850697 Class: 0  
Transaction id:= 40494 Similarity: 0.999982485539 Class: 0  
Transaction id:= 269968 Similarity: 0.999990866759 Class: 0  
Transaction id:= 78371 Similarity: 0.999991393772 Class: 0

-----  
Given transactions id= 70036 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998939069624 Class: 0  
Transaction id:= 54997 Similarity: 0.999810591962 Class: 0  
Transaction id:= 278461 Similarity: 0.999923986637 Class: 0  
Transaction id:= 243797 Similarity: 0.999924002637 Class: 0  
Transaction id:= 208406 Similarity: 0.999924020394 Class: 0  
Transaction id:= 184081 Similarity: 0.99992402801 Class: 0  
Transaction id:= 178302 Similarity: 0.999924030497 Class: 0  
Transaction id:= 156470 Similarity: 0.999924035846 Class: 0  
Transaction id:= 175445 Similarity: 0.999924059837 Class: 0  
Transaction id:= 206114 Similarity: 0.999924137933 Class: 0

-----  
Given transactions id= 226918 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998307321659 Class: 0  
Transaction id:= 54997 Similarity: 0.999501167149 Class: 0  
Transaction id:= 51068 Similarity: 0.999909313162 Class: 0  
Transaction id:= 9354 Similarity: 0.999910410586 Class: 0  
Transaction id:= 70036 Similarity: 0.999926462058 Class: 0  
Transaction id:= 195244 Similarity: 0.999977705837 Class: 0  
Transaction id:= 31405 Similarity: 0.999977950295 Class: 0  
Transaction id:= 40494 Similarity: 0.999981983705 Class: 0  
Transaction id:= 269968 Similarity: 0.999990503699 Class: 0  
Transaction id:= 78371 Similarity: 0.999991039903 Class: 0

-----  
Given transactions id= 280775 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998314803723 Class: 0  
Transaction id:= 54997 Similarity: 0.999505225893 Class: 0  
Transaction id:= 51068 Similarity: 0.999911040177 Class: 0

Transaction id:= 31000 Similarity: 0.999911040177 Class: 0  
Transaction id:= 9354 Similarity: 0.999912128007 Class: 0  
Transaction id:= 70036 Similarity: 0.999928014992 Class: 0  
Transaction id:= 195244 Similarity: 0.99997855745 Class: 0  
Transaction id:= 31405 Similarity: 0.999978797313 Class: 0  
Transaction id:= 40494 Similarity: 0.999982748852 Class: 0  
Transaction id:= 269968 Similarity: 0.999991056498 Class: 0  
Transaction id:= 78371 Similarity: 0.99999157683 Class: 0

-----  
Given transactions id= 150474 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998313101912 Class: 0  
Transaction id:= 54997 Similarity: 0.999504298683 Class: 0  
Transaction id:= 51068 Similarity: 0.999910645252 Class: 0  
Transaction id:= 9354 Similarity: 0.999911747507 Class: 0  
Transaction id:= 70036 Similarity: 0.999927659702 Class: 0  
Transaction id:= 195244 Similarity: 0.999978363266 Class: 0  
Transaction id:= 31405 Similarity: 0.999978602762 Class: 0  
Transaction id:= 40494 Similarity: 0.999982575868 Class: 0  
Transaction id:= 269968 Similarity: 0.999990930316 Class: 0  
Transaction id:= 78371 Similarity: 0.999991453888 Class: 0

-----  
Given transactions id= 221937 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998307483626 Class: 0  
Transaction id:= 54997 Similarity: 0.999501255057 Class: 0  
Transaction id:= 51068 Similarity: 0.999909350114 Class: 0  
Transaction id:= 9354 Similarity: 0.999910449491 Class: 0  
Transaction id:= 70036 Similarity: 0.999926494781 Class: 0  
Transaction id:= 195244 Similarity: 0.999977724047 Class: 0  
Transaction id:= 31405 Similarity: 0.999977968292 Class: 0  
Transaction id:= 40494 Similarity: 0.999982000368 Class: 0  
Transaction id:= 269968 Similarity: 0.999990515092 Class: 0  
Transaction id:= 78371 Similarity: 0.99999105131 Class: 0

-----  
Given transactions id= 283261 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998304982721 Class: 0  
Transaction id:= 54997 Similarity: 0.999499895827 Class: 0  
Transaction id:= 51068 Similarity: 0.999908771665 Class: 0  
Transaction id:= 9354 Similarity: 0.999909871881 Class: 0  
Transaction id:= 70036 Similarity: 0.999925973606 Class: 0  
Transaction id:= 195244 Similarity: 0.999977436187 Class: 0  
Transaction id:= 31405 Similarity: 0.999977682506 Class: 0  
Transaction id:= 40494 Similarity: 0.999981740309 Class: 0  
Transaction id:= 269968 Similarity: 0.999990326905 Class: 0  
Transaction id:= 78371 Similarity: 0.999990868313 Class: 0

-----  
Given transactions id= 98197 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998425020769 Class: 0  
Transaction id:= 54997 Similarity: 0.999564109783 Class: 0  
Transaction id:= 51068 Similarity: 0.999934934721 Class: 0  
Transaction id:= 9354 Similarity: 0.999935851248 Class: 0  
Transaction id:= 70036 Similarity: 0.99994932116 Class: 0  
Transaction id:= 195244 Similarity: 0.999989339661 Class: 0  
Transaction id:= 31405 Similarity: 0.999989509464 Class: 0  
Transaction id:= 40494 Similarity: 0.999992225468 Class: 0  
Transaction id:= 269968 Similarity: 0.999997358132 Class: 0  
Transaction id:= 278461 Similarity: 0.999997438045 Class: 0

-----  
Given transactions id= 51068 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998999986253 Class: 0  
Transaction id:= 54997 Similarity: 0.99983582381 Class: 0  
Transaction id:= 278461 Similarity: 0.999906564547 Class: 0  
Transaction id:= 243797 Similarity: 0.999906584323 Class: 0  
Transaction id:= 208406 Similarity: 0.99990660319 Class: 0  
Transaction id:= 184081 Similarity: 0.999906613651 Class: 0  
Transaction id:= 178302 Similarity: 0.999906613964 Class: 0  
Transaction id:= 156470 Similarity: 0.999906616508 Class: 0  
Transaction id:= 175445 Similarity: 0.999906647762 Class: 0  
Transaction id:= 206114 Similarity: 0.99990673303 Class: 0

-----  
Given transactions id= 169994 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998402759706 Class: 0  
Transaction id:= 54997 Similarity: 0.999552359188 Class: 0  
Transaction id:= 51068 Similarity: 0.999930345153 Class: 0  
Transaction id:= 9354 Similarity: 0.999931298897 Class: 0  
Transaction id:= 70036 Similarity: 0.999945260788 Class: 0  
Transaction id:= 195244 Similarity: 0.999987435718 Class: 0  
Transaction id:= 31405 Similarity: 0.999987618148 Class: 0  
Transaction id:= 40494 Similarity: 0.999990588889 Class: 0  
Transaction id:= 269968 Similarity: 0.999996372329 Class: 0  
Transaction id:= 78371 Similarity: 0.999996699251 Class: 0

-----  
Given transactions id= 193261 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998311772444 Class: 0  
Transaction id:= 54997 Similarity: 0.99950358254 Class: 0  
Transaction id:= 51068 Similarity: 0.999910341996 Class: 0  
Transaction id:= 9354 Similarity: 0.999911431844 Class: 0

Transaction id:= 70036 Similarity: 0.999927389071 Class: 0  
Transaction id:= 195244 Similarity: 0.999978214474 Class: 0  
Transaction id:= 31405 Similarity: 0.999978456792 Class: 0  
Transaction id:= 40494 Similarity: 0.999982440319 Class: 0  
Transaction id:= 269968 Similarity: 0.999990833998 Class: 0  
Transaction id:= 78371 Similarity: 0.999991360223 Class: 0

-----  
Given transactions id= 31405 Class: 0  
-----

Similar Transations:

-----  
Transaction id:= 12547 Similarity: 0.9986714848 Class: 0  
Transaction id:= 54997 Similarity: 0.999688832473 Class: 0  
Transaction id:= 278461 Similarity: 0.999976584741 Class: 0  
Transaction id:= 243797 Similarity: 0.999976594262 Class: 0  
Transaction id:= 208406 Similarity: 0.999976604331 Class: 0  
Transaction id:= 178302 Similarity: 0.999976609165 Class: 0  
Transaction id:= 184081 Similarity: 0.999976609432 Class: 0  
Transaction id:= 156470 Similarity: 0.999976610203 Class: 0  
Transaction id:= 175445 Similarity: 0.999976626638 Class: 0  
Transaction id:= 206114 Similarity: 0.99997666978 Class: 0

-----  
Given transactions id= 18411 Class: 0  
-----

Similar Transations:

-----  
Transaction id:= 12547 Similarity: 0.998352185311 Class: 0  
Transaction id:= 54997 Similarity: 0.999525388443 Class: 0  
Transaction id:= 51068 Similarity: 0.999919463983 Class: 0  
Transaction id:= 9354 Similarity: 0.999920497322 Class: 0  
Transaction id:= 70036 Similarity: 0.999935564527 Class: 0  
Transaction id:= 195244 Similarity: 0.999982578424 Class: 0  
Transaction id:= 31405 Similarity: 0.999982798676 Class: 0  
Transaction id:= 40494 Similarity: 0.999986334173 Class: 0  
Transaction id:= 269968 Similarity: 0.999993572729 Class: 0  
Transaction id:= 78371 Similarity: 0.999994013174 Class: 0

-----  
Given transactions id= 211841 Class: 0  
-----

Similar Transations:

-----  
Transaction id:= 12547 Similarity: 0.998389653556 Class: 0  
Transaction id:= 54997 Similarity: 0.999545404763 Class: 0  
Transaction id:= 51068 Similarity: 0.999927587067 Class: 0  
Transaction id:= 9354 Similarity: 0.999928556733 Class: 0  
Transaction id:= 70036 Similarity: 0.999942814765 Class: 0  
Transaction id:= 195244 Similarity: 0.999986247784 Class: 0  
Transaction id:= 31405 Similarity: 0.999986439612 Class: 0  
Transaction id:= 40494 Similarity: 0.999989556735 Class: 0  
Transaction id:= 269968 Similarity: 0.999995721222 Class: 0  
Transaction id:= 78371 Similarity: 0.99999607915 Class: 0  
-----

Given transactions id= 178302 Class: 0

Similar Transactions:

Transaction id:= 12547 Similarity: 0.998295731514 Class: 0  
Transaction id:= 54997 Similarity: 0.999494864835 Class: 0  
Transaction id:= 51068 Similarity: 0.999906613964 Class: 0  
Transaction id:= 9354 Similarity: 0.999907730716 Class: 0  
Transaction id:= 70036 Similarity: 0.999924030497 Class: 0  
Transaction id:= 195244 Similarity: 0.999976357493 Class: 0  
Transaction id:= 31405 Similarity: 0.999976609165 Class: 0  
Transaction id:= 40494 Similarity: 0.999980771498 Class: 0  
Transaction id:= 269968 Similarity: 0.999989616588 Class: 0  
Transaction id:= 78371 Similarity: 0.999990177283 Class: 0

Given transactions id= 19151 Class: 0

Similar Transactions:

Transaction id:= 12547 Similarity: 0.998350535398 Class: 0  
Transaction id:= 54997 Similarity: 0.999524501109 Class: 0  
Transaction id:= 51068 Similarity: 0.999919105007 Class: 0  
Transaction id:= 9354 Similarity: 0.999920149452 Class: 0  
Transaction id:= 70036 Similarity: 0.99993523946 Class: 0  
Transaction id:= 195244 Similarity: 0.9999824128 Class: 0  
Transaction id:= 31405 Similarity: 0.999982626473 Class: 0  
Transaction id:= 40494 Similarity: 0.999986187246 Class: 0  
Transaction id:= 269968 Similarity: 0.999993476979 Class: 0  
Transaction id:= 78371 Similarity: 0.999993922431 Class: 0

Given transactions id= 219387 Class: 0

Similar Transactions:

Transaction id:= 12547 Similarity: 0.998321517778 Class: 0  
Transaction id:= 54997 Similarity: 0.999508861647 Class: 0  
Transaction id:= 51068 Similarity: 0.999912576882 Class: 0  
Transaction id:= 9354 Similarity: 0.999913654952 Class: 0  
Transaction id:= 70036 Similarity: 0.999929397911 Class: 0  
Transaction id:= 195244 Similarity: 0.999979309208 Class: 0  
Transaction id:= 31405 Similarity: 0.999979544352 Class: 0  
Transaction id:= 40494 Similarity: 0.99998342249 Class: 0  
Transaction id:= 269968 Similarity: 0.999991539177 Class: 0  
Transaction id:= 78371 Similarity: 0.99999204485 Class: 0

Given transactions id= 263690 Class: 0

Similar Transactions:

Transaction id:= 12547 Similarity: 0.998307198192 Class: 0  
Transaction id:= 54997 Similarity: 0.99950109883 Class: 0  
Transaction id:= 51068 Similarity: 0.999909284269 Class: 0  
Transaction id:= 9354 Similarity: 0.999910384245 Class: 0  
Transaction id:= 70036 Similarity: 0.999926435783 Class: 0

Transaction id:= 195244 Similarity: 0.999977691467 Class: 0  
Transaction id:= 31405 Similarity: 0.999977935724 Class: 0  
Transaction id:= 40494 Similarity: 0.999981971569 Class: 0  
Transaction id:= 269968 Similarity: 0.999990493641 Class: 0  
Transaction id:= 78371 Similarity: 0.999991030716 Class: 0

-----  
Given transactions id= 135458 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998306140446 Class: 0  
Transaction id:= 54997 Similarity: 0.999500524441 Class: 0  
Transaction id:= 51068 Similarity: 0.999909039179 Class: 0  
Transaction id:= 9354 Similarity: 0.999910133707 Class: 0  
Transaction id:= 70036 Similarity: 0.999926219292 Class: 0  
Transaction id:= 195244 Similarity: 0.999977568851 Class: 0  
Transaction id:= 31405 Similarity: 0.999977815957 Class: 0  
Transaction id:= 40494 Similarity: 0.999981859976 Class: 0  
Transaction id:= 269968 Similarity: 0.99999041277 Class: 0  
Transaction id:= 78371 Similarity: 0.999990952057 Class: 0

-----  
Given transactions id= 106668 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998307180546 Class: 0  
Transaction id:= 54997 Similarity: 0.999501091658 Class: 0  
Transaction id:= 51068 Similarity: 0.99990928375 Class: 0  
Transaction id:= 9354 Similarity: 0.999910377337 Class: 0  
Transaction id:= 70036 Similarity: 0.999926430926 Class: 0  
Transaction id:= 195244 Similarity: 0.999977687945 Class: 0  
Transaction id:= 31405 Similarity: 0.99997793303 Class: 0  
Transaction id:= 40494 Similarity: 0.999981967029 Class: 0  
Transaction id:= 269968 Similarity: 0.999990490402 Class: 0  
Transaction id:= 78371 Similarity: 0.999991027426 Class: 0

-----  
Given transactions id= 114354 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998296831258 Class: 0  
Transaction id:= 54997 Similarity: 0.999495463689 Class: 0  
Transaction id:= 51068 Similarity: 0.99990687273 Class: 0  
Transaction id:= 9354 Similarity: 0.99990798799 Class: 0  
Transaction id:= 70036 Similarity: 0.999924261625 Class: 0  
Transaction id:= 195244 Similarity: 0.999976486553 Class: 0  
Transaction id:= 31405 Similarity: 0.999976737391 Class: 0  
Transaction id:= 40494 Similarity: 0.999980888286 Class: 0  
Transaction id:= 269968 Similarity: 0.999989701566 Class: 0  
Transaction id:= 78371 Similarity: 0.99999025996 Class: 0

-----  
Given transactions id= 54997 Class: 0

-----  
Similar Transations:  
-----

Transaction id:= 278461 Similarity: 0.999494749337 Class: 0  
Transaction id:= 243797 Similarity: 0.999494793341 Class: 0  
Transaction id:= 208406 Similarity: 0.99949483914 Class: 0  
Transaction id:= 184081 Similarity: 0.999494858147 Class: 0  
Transaction id:= 178302 Similarity: 0.999494864835 Class: 0  
Transaction id:= 156470 Similarity: 0.999494872255 Class: 0  
Transaction id:= 175445 Similarity: 0.999494942 Class: 0  
Transaction id:= 206114 Similarity: 0.999495138886 Class: 0  
Transaction id:= 237323 Similarity: 0.999495175934 Class: 0  
Transaction id:= 157068 Similarity: 0.999495221079 Class: 0

-----  
Given transactions id= 176946 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998301613042 Class: 0  
Transaction id:= 54997 Similarity: 0.999498065325 Class: 0  
Transaction id:= 51068 Similarity: 0.999907988502 Class: 0  
Transaction id:= 9354 Similarity: 0.999909093121 Class: 0  
Transaction id:= 70036 Similarity: 0.999925267927 Class: 0  
Transaction id:= 195244 Similarity: 0.999977045598 Class: 0  
Transaction id:= 31405 Similarity: 0.999977294845 Class: 0  
Transaction id:= 40494 Similarity: 0.999981389035 Class: 0  
Transaction id:= 269968 Similarity: 0.999990070631 Class: 0  
Transaction id:= 78371 Similarity: 0.999990619641 Class: 0

-----  
Given transactions id= 159680 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998494008003 Class: 0  
Transaction id:= 54997 Similarity: 0.99960004578 Class: 0  
Transaction id:= 51068 Similarity: 0.999948347069 Class: 0  
Transaction id:= 9354 Similarity: 0.999949157727 Class: 0  
Transaction id:= 70036 Similarity: 0.999961061933 Class: 0  
Transaction id:= 278461 Similarity: 0.999993851772 Class: 0  
Transaction id:= 243797 Similarity: 0.999993857265 Class: 0  
Transaction id:= 208406 Similarity: 0.999993862492 Class: 0  
Transaction id:= 156470 Similarity: 0.999993862921 Class: 0  
Transaction id:= 184081 Similarity: 0.999993864837 Class: 0

-----  
Given transactions id= 22093 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.99846223193 Class: 0  
Transaction id:= 54997 Similarity: 0.99958358335 Class: 0  
Transaction id:= 51068 Similarity: 0.999942321714 Class: 0  
Transaction id:= 9354 Similarity: 0.999943186823 Class: 0  
Transaction id:= 70036 Similarity: 0.999955804287 Class: 0  
Transaction id:= 195244 Similarity: 0.999992193147 Class: 0

Transaction id:= 31405 Similarity: 0.999992337931 Class: 0  
Transaction id:= 40494 Similarity: 0.999994628176 Class: 0  
Transaction id:= 278461 Similarity: 0.999995700399 Class: 0  
Transaction id:= 243797 Similarity: 0.999995707313 Class: 0

-----  
Given transactions id= 14436 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998363536861 Class: 0  
Transaction id:= 54997 Similarity: 0.999531475403 Class: 0  
Transaction id:= 51068 Similarity: 0.999921964816 Class: 0  
Transaction id:= 9354 Similarity: 0.999922973282 Class: 0  
Transaction id:= 70036 Similarity: 0.999937799734 Class: 0  
Transaction id:= 195244 Similarity: 0.999983731281 Class: 0  
Transaction id:= 31405 Similarity: 0.999983939046 Class: 0  
Transaction id:= 40494 Similarity: 0.999987356745 Class: 0  
Transaction id:= 269968 Similarity: 0.999994265563 Class: 0  
Transaction id:= 78371 Similarity: 0.99999467486 Class: 0

-----  
Given transactions id= 175445 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998295875828 Class: 0  
Transaction id:= 54997 Similarity: 0.999494942 Class: 0  
Transaction id:= 51068 Similarity: 0.999906647762 Class: 0  
Transaction id:= 9354 Similarity: 0.999907763927 Class: 0  
Transaction id:= 70036 Similarity: 0.999924059837 Class: 0  
Transaction id:= 195244 Similarity: 0.999976374593 Class: 0  
Transaction id:= 31405 Similarity: 0.999976626638 Class: 0  
Transaction id:= 40494 Similarity: 0.99998078478 Class: 0  
Transaction id:= 269968 Similarity: 0.99998962784 Class: 0  
Transaction id:= 78371 Similarity: 0.999990189314 Class: 0

-----  
Given transactions id= 229757 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998367001987 Class: 0  
Transaction id:= 54997 Similarity: 0.999533328247 Class: 0  
Transaction id:= 51068 Similarity: 0.999922721248 Class: 0  
Transaction id:= 9354 Similarity: 0.999923731655 Class: 0  
Transaction id:= 70036 Similarity: 0.999938478418 Class: 0  
Transaction id:= 195244 Similarity: 0.999984082595 Class: 0  
Transaction id:= 31405 Similarity: 0.999984288081 Class: 0  
Transaction id:= 40494 Similarity: 0.999987661074 Class: 0  
Transaction id:= 269968 Similarity: 0.999994479183 Class: 0  
Transaction id:= 78371 Similarity: 0.999994887811 Class: 0

-----  
Given transactions id= 193039 Class: 0  
-----

Similar Transactions:



Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.99829974797 Class: 0  
Transaction id:= 54997 Similarity: 0.999497050751 Class: 0  
Transaction id:= 51068 Similarity: 0.999907552454 Class: 0  
Transaction id:= 9354 Similarity: 0.999908663454 Class: 0  
Transaction id:= 70036 Similarity: 0.999924875293 Class: 0  
Transaction id:= 195244 Similarity: 0.999976828381 Class: 0  
Transaction id:= 31405 Similarity: 0.999977078232 Class: 0  
Transaction id:= 40494 Similarity: 0.999981193762 Class: 0  
Transaction id:= 269968 Similarity: 0.999989927927 Class: 0  
Transaction id:= 78371 Similarity: 0.999990481098 Class: 0

-----  
Given transactions id= 206114 Class: 0

-----  
Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.9982962366 Class: 0  
Transaction id:= 54997 Similarity: 0.999495138886 Class: 0  
Transaction id:= 51068 Similarity: 0.99990673303 Class: 0  
Transaction id:= 9354 Similarity: 0.999907844705 Class: 0  
Transaction id:= 70036 Similarity: 0.999924137933 Class: 0  
Transaction id:= 195244 Similarity: 0.999976417505 Class: 0  
Transaction id:= 31405 Similarity: 0.99997666978 Class: 0  
Transaction id:= 40494 Similarity: 0.99998082261 Class: 0  
Transaction id:= 269968 Similarity: 0.999989655829 Class: 0  
Transaction id:= 78371 Similarity: 0.999990216245 Class: 0

-----  
Given transactions id= 131336 Class: 0

-----  
Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998324835935 Class: 0  
Transaction id:= 54997 Similarity: 0.999510657004 Class: 0  
Transaction id:= 51068 Similarity: 0.999913336962 Class: 0  
Transaction id:= 9354 Similarity: 0.999914409643 Class: 0  
Transaction id:= 70036 Similarity: 0.999930078625 Class: 0  
Transaction id:= 195244 Similarity: 0.999979676234 Class: 0  
Transaction id:= 31405 Similarity: 0.999979910461 Class: 0  
Transaction id:= 40494 Similarity: 0.999983748838 Class: 0  
Transaction id:= 269968 Similarity: 0.999991773349 Class: 0  
Transaction id:= 78371 Similarity: 0.999992272202 Class: 0

-----  
Given transactions id= 192003 Class: 0

-----  
Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998313061921 Class: 0  
Transaction id:= 54997 Similarity: 0.999504282131 Class: 0  
Transaction id:= 51068 Similarity: 0.999910638511 Class: 0  
Transaction id:= 9354 Similarity: 0.999911728679 Class: 0  
Transaction id:= 70036 Similarity: 0.999927654323 Class: 0  
Transaction id:= 195244 Similarity: 0.999978360266 Class: 0  
Transaction id:= 31405 Similarity: 0.999978601021 Class: 0  
Transaction id:= 40494 Similarity: 0.999982572096 Class: 0

Transaction id:= 40494 Similarity: 0.999902572090 Class: 0  
Transaction id:= 269968 Similarity: 0.999990929015 Class: 0  
Transaction id:= 78371 Similarity: 0.999991452497 Class: 0

-----  
Given transactions id= 252739 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998303250889 Class: 0  
Transaction id:= 54997 Similarity: 0.999498954816 Class: 0  
Transaction id:= 51068 Similarity: 0.999908369813 Class: 0  
Transaction id:= 9354 Similarity: 0.999909471525 Class: 0  
Transaction id:= 70036 Similarity: 0.999925612083 Class: 0  
Transaction id:= 195244 Similarity: 0.999977236498 Class: 0  
Transaction id:= 31405 Similarity: 0.999977484249 Class: 0  
Transaction id:= 40494 Similarity: 0.999981560518 Class: 0  
Transaction id:= 269968 Similarity: 0.999990195954 Class: 0  
Transaction id:= 78371 Similarity: 0.99999074119 Class: 0

-----  
Given transactions id= 136128 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998309505953 Class: 0  
Transaction id:= 54997 Similarity: 0.999502353576 Class: 0  
Transaction id:= 51068 Similarity: 0.999909817437 Class: 0  
Transaction id:= 9354 Similarity: 0.999910917939 Class: 0  
Transaction id:= 70036 Similarity: 0.999926914713 Class: 0  
Transaction id:= 195244 Similarity: 0.999977954261 Class: 0  
Transaction id:= 31405 Similarity: 0.999978197609 Class: 0  
Transaction id:= 40494 Similarity: 0.999982209726 Class: 0  
Transaction id:= 269968 Similarity: 0.999990664506 Class: 0  
Transaction id:= 78371 Similarity: 0.999991195942 Class: 0

-----  
Given transactions id= 62510 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998299879311 Class: 0  
Transaction id:= 54997 Similarity: 0.999497122582 Class: 0  
Transaction id:= 51068 Similarity: 0.999907587301 Class: 0  
Transaction id:= 9354 Similarity: 0.999908689142 Class: 0  
Transaction id:= 70036 Similarity: 0.999924904823 Class: 0  
Transaction id:= 195244 Similarity: 0.999976844059 Class: 0  
Transaction id:= 31405 Similarity: 0.999977093812 Class: 0  
Transaction id:= 40494 Similarity: 0.999981207482 Class: 0  
Transaction id:= 269968 Similarity: 0.999989936758 Class: 0  
Transaction id:= 78371 Similarity: 0.999990488455 Class: 0

-----  
Given transactions id= 189740 Class: 0  
-----

Similar Transactions:

Transaction id:= 12547 Similarity: 0.998311114357 Class: 0  
Transaction id:= 54997 Similarity: 0.999503225796 Class: 0  
Transaction id:= 51068 Similarity: 0.999910189612 Class: 0  
Transaction id:= 9354 Similarity: 0.999911282096 Class: 0  
Transaction id:= 70036 Similarity: 0.99992725056 Class: 0  
Transaction id:= 195244 Similarity: 0.999978139151 Class: 0  
Transaction id:= 31405 Similarity: 0.99997838148 Class: 0  
Transaction id:= 40494 Similarity: 0.999982372694 Class: 0  
Transaction id:= 269968 Similarity: 0.999990785826 Class: 0  
Transaction id:= 78371 Similarity: 0.99999131379 Class: 0

-----  
Given transactions id= 243797 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998295601601 Class: 0  
Transaction id:= 54997 Similarity: 0.999494793341 Class: 0  
Transaction id:= 51068 Similarity: 0.999906584323 Class: 0  
Transaction id:= 9354 Similarity: 0.99990769914 Class: 0  
Transaction id:= 70036 Similarity: 0.999924002637 Class: 0  
Transaction id:= 195244 Similarity: 0.999976342555 Class: 0  
Transaction id:= 31405 Similarity: 0.999976594262 Class: 0  
Transaction id:= 40494 Similarity: 0.999980756074 Class: 0  
Transaction id:= 269968 Similarity: 0.999989606603 Class: 0  
Transaction id:= 78371 Similarity: 0.999990168381 Class: 0

-----  
Given transactions id= 24128 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998387132041 Class: 0  
Transaction id:= 54997 Similarity: 0.999544065817 Class: 0  
Transaction id:= 51068 Similarity: 0.999927052665 Class: 0  
Transaction id:= 9354 Similarity: 0.999928040856 Class: 0  
Transaction id:= 70036 Similarity: 0.999942325708 Class: 0  
Transaction id:= 195244 Similarity: 0.999986006297 Class: 0  
Transaction id:= 31405 Similarity: 0.999986197155 Class: 0  
Transaction id:= 40494 Similarity: 0.999989346354 Class: 0  
Transaction id:= 269968 Similarity: 0.999995584001 Class: 0  
Transaction id:= 78371 Similarity: 0.999995948349 Class: 0

-----  
Given transactions id= 107141 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998344611966 Class: 0  
Transaction id:= 54997 Similarity: 0.999521321442 Class: 0  
Transaction id:= 51068 Similarity: 0.999917789414 Class: 0  
Transaction id:= 9354 Similarity: 0.999918833622 Class: 0  
Transaction id:= 70036 Similarity: 0.999934070246 Class: 0  
Transaction id:= 195244 Similarity: 0.999981802473 Class: 0  
Transaction id:= 31405 Similarity: 0.999982022311 Class: 0  
Transaction id:= 40494 Similarity: 0.99998564737 Class: 0  
Transaction id:= 269968 Similarity: 0.999993104445 Class: 0

-----  
Transaction id:= 78371 Similarity: 0.999993559444 Class: 0  
-----

-----  
Given transactions id= 78808 Class: 0  
-----

Similar Transactions:  
-----

Transaction id:= 12547 Similarity: 0.998305342109 Class: 0  
Transaction id:= 54997 Similarity: 0.999500092711 Class: 0  
Transaction id:= 51068 Similarity: 0.99990885577 Class: 0  
Transaction id:= 9354 Similarity: 0.999909954356 Class: 0  
Transaction id:= 70036 Similarity: 0.999926048094 Class: 0  
Transaction id:= 195244 Similarity: 0.99997747762 Class: 0  
Transaction id:= 31405 Similarity: 0.999977721963 Class: 0  
Transaction id:= 40494 Similarity: 0.999981779467 Class: 0  
Transaction id:= 269968 Similarity: 0.99999035381 Class: 0  
Transaction id:= 78371 Similarity: 0.999990893613 Class: 0

-----  
Given transactions id= 157068 Class: 0  
-----

Similar Transactions:  
-----

Transaction id:= 12547 Similarity: 0.998296393885 Class: 0  
Transaction id:= 54997 Similarity: 0.999495221079 Class: 0  
Transaction id:= 51068 Similarity: 0.999906770375 Class: 0  
Transaction id:= 9354 Similarity: 0.999907891327 Class: 0  
Transaction id:= 70036 Similarity: 0.999924168787 Class: 0  
Transaction id:= 195244 Similarity: 0.999976434398 Class: 0  
Transaction id:= 31405 Similarity: 0.999976685719 Class: 0  
Transaction id:= 40494 Similarity: 0.999980839887 Class: 0  
Transaction id:= 269968 Similarity: 0.99998966649 Class: 0  
Transaction id:= 78371 Similarity: 0.999990226295 Class: 0

-----  
Given transactions id= 178714 Class: 0  
-----

Similar Transactions:  
-----

Transaction id:= 12547 Similarity: 0.998425679885 Class: 0  
Transaction id:= 54997 Similarity: 0.999564455988 Class: 0  
Transaction id:= 51068 Similarity: 0.999935070697 Class: 0  
Transaction id:= 9354 Similarity: 0.999935988781 Class: 0  
Transaction id:= 70036 Similarity: 0.999949439999 Class: 0  
Transaction id:= 195244 Similarity: 0.999989392278 Class: 0  
Transaction id:= 31405 Similarity: 0.999989561706 Class: 0  
Transaction id:= 40494 Similarity: 0.999992270619 Class: 0  
Transaction id:= 269968 Similarity: 0.999997385339 Class: 0  
Transaction id:= 278461 Similarity: 0.999997411194 Class: 0

-----  
Given transactions id= 184081 Class: 0  
-----

Similar Transactions:  
-----

Transaction id:= 12547 Similarity: 0.998295722032 Class: 0

Transaction id:= 54997 Similarity: 0.999494858147 Class: 0  
Transaction id:= 51068 Similarity: 0.999906613651 Class: 0  
Transaction id:= 9354 Similarity: 0.999907727465 Class: 0  
Transaction id:= 70036 Similarity: 0.99992402801 Class: 0  
Transaction id:= 195244 Similarity: 0.99997635679 Class: 0  
Transaction id:= 31405 Similarity: 0.999976609432 Class: 0  
Transaction id:= 40494 Similarity: 0.999980768374 Class: 0  
Transaction id:= 269968 Similarity: 0.999989615341 Class: 0  
Transaction id:= 78371 Similarity: 0.999990176937 Class: 0

-----  
Given transactions id= 150939 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998297160005 Class: 0  
Transaction id:= 54997 Similarity: 0.999495637692 Class: 0  
Transaction id:= 51068 Similarity: 0.999906945557 Class: 0  
Transaction id:= 9354 Similarity: 0.999908068546 Class: 0  
Transaction id:= 70036 Similarity: 0.999924328208 Class: 0  
Transaction id:= 195244 Similarity: 0.99997652396 Class: 0  
Transaction id:= 31405 Similarity: 0.999976774163 Class: 0  
Transaction id:= 40494 Similarity: 0.999980918817 Class: 0  
Transaction id:= 269968 Similarity: 0.999989726572 Class: 0  
Transaction id:= 78371 Similarity: 0.99999028455 Class: 0

-----  
Given transactions id= 36672 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.99829930577 Class: 0  
Transaction id:= 54997 Similarity: 0.999496806439 Class: 0  
Transaction id:= 51068 Similarity: 0.999907447628 Class: 0  
Transaction id:= 9354 Similarity: 0.99990855961 Class: 0  
Transaction id:= 70036 Similarity: 0.999924776596 Class: 0  
Transaction id:= 195244 Similarity: 0.99997677438 Class: 0  
Transaction id:= 31405 Similarity: 0.999977023379 Class: 0  
Transaction id:= 40494 Similarity: 0.999981146267 Class: 0  
Transaction id:= 269968 Similarity: 0.999989891667 Class: 0  
Transaction id:= 78371 Similarity: 0.999990447202 Class: 0

-----  
Given transactions id= 228181 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.99834002423 Class: 0  
Transaction id:= 54997 Similarity: 0.999518853046 Class: 0  
Transaction id:= 51068 Similarity: 0.99991676296 Class: 0  
Transaction id:= 9354 Similarity: 0.999917812691 Class: 0  
Transaction id:= 70036 Similarity: 0.999933152879 Class: 0  
Transaction id:= 195244 Similarity: 0.999981318928 Class: 0  
Transaction id:= 31405 Similarity: 0.999981542012 Class: 0  
Transaction id:= 40494 Similarity: 0.99998521585 Class: 0  
Transaction id:= 269968 Similarity: 0.999992805968 Class: 0  
Transaction id:= 78371 Similarity: 0.999993271348 Class: 0

-----  
Given transactions id= 178762 Class: 0  
-----

Similar Transactions:  
-----

Transaction id:= 12547 Similarity: 0.998342043566 Class: 0  
Transaction id:= 54997 Similarity: 0.999519938876 Class: 0  
Transaction id:= 51068 Similarity: 0.999917215971 Class: 0  
Transaction id:= 9354 Similarity: 0.99991825985 Class: 0  
Transaction id:= 70036 Similarity: 0.999933558753 Class: 0  
Transaction id:= 195244 Similarity: 0.999981533233 Class: 0  
Transaction id:= 31405 Similarity: 0.999981756299 Class: 0  
Transaction id:= 40494 Similarity: 0.999985404776 Class: 0  
Transaction id:= 269968 Similarity: 0.999992938313 Class: 0  
Transaction id:= 78371 Similarity: 0.999993399375 Class: 0

-----  
Given transactions id= 9354 Class: 0  
-----

Similar Transactions:  
-----

Transaction id:= 12547 Similarity: 0.998996084743 Class: 0  
Transaction id:= 54997 Similarity: 0.999834176092 Class: 0  
Transaction id:= 278461 Similarity: 0.999907675663 Class: 0  
Transaction id:= 243797 Similarity: 0.99990769914 Class: 0  
Transaction id:= 208406 Similarity: 0.99990772108 Class: 0  
Transaction id:= 184081 Similarity: 0.999907727465 Class: 0  
Transaction id:= 178302 Similarity: 0.999907730716 Class: 0  
Transaction id:= 156470 Similarity: 0.999907735345 Class: 0  
Transaction id:= 175445 Similarity: 0.999907763927 Class: 0  
Transaction id:= 206114 Similarity: 0.999907844705 Class: 0

-----  
Given transactions id= 261118 Class: 0  
-----

Similar Transactions:  
-----

Transaction id:= 12547 Similarity: 0.998323450612 Class: 0  
Transaction id:= 54997 Similarity: 0.999509907967 Class: 0  
Transaction id:= 51068 Similarity: 0.999913018524 Class: 0  
Transaction id:= 9354 Similarity: 0.999914091972 Class: 0  
Transaction id:= 70036 Similarity: 0.999929794251 Class: 0  
Transaction id:= 195244 Similarity: 0.999979523363 Class: 0  
Transaction id:= 31405 Similarity: 0.999979757728 Class: 0  
Transaction id:= 40494 Similarity: 0.999983613545 Class: 0  
Transaction id:= 269968 Similarity: 0.99999167655 Class: 0  
Transaction id:= 78371 Similarity: 0.999992177869 Class: 0

-----  
Given transactions id= 64881 Class: 0  
-----

Similar Transactions:  
-----

Transaction id:= 12547 Similarity: 0.99847969544 Class: 0  
Transaction id:= 54997 Similarity: 0.999592649839 Class: 0

Transaction id:= 51068 Similarity: 0.999945662779 Class: 0  
Transaction id:= 9354 Similarity: 0.999946494969 Class: 0  
Transaction id:= 70036 Similarity: 0.999958732741 Class: 0  
Transaction id:= 195244 Similarity: 0.999993389348 Class: 0  
Transaction id:= 31405 Similarity: 0.999993524528 Class: 0  
Transaction id:= 278461 Similarity: 0.999994723206 Class: 0  
Transaction id:= 243797 Similarity: 0.999994728627 Class: 0  
Transaction id:= 208406 Similarity: 0.999994733311 Class: 0

-----  
Given transactions id= 179261 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998330805269 Class: 0  
Transaction id:= 54997 Similarity: 0.999513881276 Class: 0  
Transaction id:= 51068 Similarity: 0.999914688482 Class: 0  
Transaction id:= 9354 Similarity: 0.99991574759 Class: 0  
Transaction id:= 70036 Similarity: 0.999931293738 Class: 0  
Transaction id:= 195244 Similarity: 0.999980329598 Class: 0  
Transaction id:= 31405 Similarity: 0.999980558932 Class: 0  
Transaction id:= 40494 Similarity: 0.999984332884 Class: 0  
Transaction id:= 269968 Similarity: 0.999992186806 Class: 0  
Transaction id:= 78371 Similarity: 0.999992671949 Class: 0

-----  
Given transactions id= 56198 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998300786405 Class: 0  
Transaction id:= 54997 Similarity: 0.999497615586 Class: 0  
Transaction id:= 51068 Similarity: 0.999907797928 Class: 0  
Transaction id:= 9354 Similarity: 0.999908900826 Class: 0  
Transaction id:= 70036 Similarity: 0.99992509433 Class: 0  
Transaction id:= 195244 Similarity: 0.999976947268 Class: 0  
Transaction id:= 31405 Similarity: 0.999977195828 Class: 0  
Transaction id:= 40494 Similarity: 0.999981302691 Class: 0  
Transaction id:= 269968 Similarity: 0.999990004246 Class: 0  
Transaction id:= 78371 Similarity: 0.99999055342 Class: 0

-----  
Given transactions id= 74617 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998331743516 Class: 0  
Transaction id:= 54997 Similarity: 0.999514388917 Class: 0  
Transaction id:= 51068 Similarity: 0.999914897737 Class: 0  
Transaction id:= 9354 Similarity: 0.999915963391 Class: 0  
Transaction id:= 70036 Similarity: 0.999931479492 Class: 0  
Transaction id:= 195244 Similarity: 0.999980428583 Class: 0  
Transaction id:= 31405 Similarity: 0.999980657192 Class: 0  
Transaction id:= 40494 Similarity: 0.999984423818 Class: 0  
Transaction id:= 269968 Similarity: 0.999992248573 Class: 0  
Transaction id:= 78371 Similarity: 0.999992731993 Class: 0

-----  
Given transactions id= 267183 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998352154426 Class: 0  
Transaction id:= 54997 Similarity: 0.999525373954 Class: 0  
Transaction id:= 51068 Similarity: 0.99991946393 Class: 0  
Transaction id:= 9354 Similarity: 0.999920492187 Class: 0  
Transaction id:= 70036 Similarity: 0.999935572293 Class: 0  
Transaction id:= 195244 Similarity: 0.99998258632 Class: 0  
Transaction id:= 31405 Similarity: 0.999982802621 Class: 0  
Transaction id:= 40494 Similarity: 0.999986339293 Class: 0  
Transaction id:= 269968 Similarity: 0.999993583818 Class: 0  
Transaction id:= 78371 Similarity: 0.99999402281 Class: 0

-----  
Given transactions id= 78371 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998544520638 Class: 0  
Transaction id:= 54997 Similarity: 0.999625870579 Class: 0  
Transaction id:= 51068 Similarity: 0.999957350906 Class: 0  
Transaction id:= 9354 Similarity: 0.999958086458 Class: 0  
Transaction id:= 70036 Similarity: 0.999968813829 Class: 0  
Transaction id:= 278461 Similarity: 0.999990162102 Class: 0  
Transaction id:= 243797 Similarity: 0.999990168381 Class: 0  
Transaction id:= 208406 Similarity: 0.999990174375 Class: 0  
Transaction id:= 156470 Similarity: 0.999990175235 Class: 0  
Transaction id:= 184081 Similarity: 0.999990176937 Class: 0

-----  
Given transactions id= 81645 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998363759114 Class: 0  
Transaction id:= 54997 Similarity: 0.99953159493 Class: 0  
Transaction id:= 51068 Similarity: 0.999922013245 Class: 0  
Transaction id:= 9354 Similarity: 0.999923025769 Class: 0  
Transaction id:= 70036 Similarity: 0.999937847205 Class: 0  
Transaction id:= 195244 Similarity: 0.999983760835 Class: 0  
Transaction id:= 31405 Similarity: 0.999983967691 Class: 0  
Transaction id:= 40494 Similarity: 0.999987379756 Class: 0  
Transaction id:= 269968 Similarity: 0.999994288521 Class: 0  
Transaction id:= 78371 Similarity: 0.999994701272 Class: 0

-----  
Given transactions id= 278461 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998295522217 Class: 0  
Transaction id:= 54997 Similarity: 0.999494749337 Class: 0  
Transaction id:= 51068 Similarity: 0.999906564547 Class: 0  
Transaction id:= 9354 Similarity: 0.999906756667 Class: 0



Transaction id:= 9354 Similarity: 0.999907675663 Class: 0  
Transaction id:= 70036 Similarity: 0.999923986637 Class: 0  
Transaction id:= 195244 Similarity: 0.999976332443 Class: 0  
Transaction id:= 31405 Similarity: 0.999976584741 Class: 0  
Transaction id:= 40494 Similarity: 0.999980745109 Class: 0  
Transaction id:= 269968 Similarity: 0.999989599433 Class: 0  
Transaction id:= 78371 Similarity: 0.999990162102 Class: 0

-----  
Given transactions id= 83762 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998348172743 Class: 0  
Transaction id:= 54997 Similarity: 0.999523232402 Class: 0  
Transaction id:= 51068 Similarity: 0.999918581612 Class: 0  
Transaction id:= 9354 Similarity: 0.999919622109 Class: 0  
Transaction id:= 70036 Similarity: 0.999934774858 Class: 0  
Transaction id:= 195244 Similarity: 0.999982171959 Class: 0  
Transaction id:= 31405 Similarity: 0.999982387185 Class: 0  
Transaction id:= 40494 Similarity: 0.99998597319 Class: 0  
Transaction id:= 269968 Similarity: 0.99999333079 Class: 0  
Transaction id:= 78371 Similarity: 0.999993780364 Class: 0

-----  
Given transactions id= 198086 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998363323991 Class: 0  
Transaction id:= 54997 Similarity: 0.999531362491 Class: 0  
Transaction id:= 51068 Similarity: 0.99992191746 Class: 0  
Transaction id:= 9354 Similarity: 0.999922933068 Class: 0  
Transaction id:= 70036 Similarity: 0.999937763158 Class: 0  
Transaction id:= 195244 Similarity: 0.999983717701 Class: 0  
Transaction id:= 31405 Similarity: 0.999983926443 Class: 0  
Transaction id:= 40494 Similarity: 0.99998733996 Class: 0  
Transaction id:= 269968 Similarity: 0.999994263409 Class: 0  
Transaction id:= 78371 Similarity: 0.999994677952 Class: 0

-----  
Given transactions id= 210356 Class: 0  
-----

Similar Transations:  
-----

Transaction id:= 12547 Similarity: 0.998298432314 Class: 0  
Transaction id:= 54997 Similarity: 0.999496334076 Class: 0  
Transaction id:= 51068 Similarity: 0.999907246417 Class: 0  
Transaction id:= 9354 Similarity: 0.999908358694 Class: 0  
Transaction id:= 70036 Similarity: 0.999924599094 Class: 0  
Transaction id:= 195244 Similarity: 0.999976674923 Class: 0  
Transaction id:= 31405 Similarity: 0.999976924467 Class: 0  
Transaction id:= 40494 Similarity: 0.999981057151 Class: 0  
Transaction id:= 269968 Similarity: 0.999989826406 Class: 0  
Transaction id:= 78371 Similarity: 0.999990381999 Class: 0

-----  
Given transactions id= 96707 Class: 0  
-----

Similar Transactions:  
-----

Transaction id:= 12547 Similarity: 0.998313031173 Class: 0  
Transaction id:= 54997 Similarity: 0.99950426348 Class: 0  
Transaction id:= 51068 Similarity: 0.999910633352 Class: 0  
Transaction id:= 9354 Similarity: 0.999911715066 Class: 0  
Transaction id:= 70036 Similarity: 0.999927649142 Class: 0  
Transaction id:= 195244 Similarity: 0.999978356151 Class: 0  
Transaction id:= 31405 Similarity: 0.999978596828 Class: 0  
Transaction id:= 40494 Similarity: 0.999982566692 Class: 0  
Transaction id:= 269968 Similarity: 0.999990924252 Class: 0  
Transaction id:= 78371 Similarity: 0.999991449285 Class: 0

-----  
Given transactions id= 237323 Class: 0  
-----

Similar Transactions:  
-----

Transaction id:= 12547 Similarity: 0.998296303715 Class: 0  
Transaction id:= 54997 Similarity: 0.999495175934 Class: 0  
Transaction id:= 51068 Similarity: 0.999906749583 Class: 0  
Transaction id:= 9354 Similarity: 0.9999078613 Class: 0  
Transaction id:= 70036 Similarity: 0.999924152078 Class: 0  
Transaction id:= 195244 Similarity: 0.999976425545 Class: 0  
Transaction id:= 31405 Similarity: 0.999976677479 Class: 0  
Transaction id:= 40494 Similarity: 0.999980830574 Class: 0  
Transaction id:= 269968 Similarity: 0.999989661248 Class: 0  
Transaction id:= 78371 Similarity: 0.999990221334 Class: 0

-----  
Given transactions id= 223671 Class: 0  
-----

Similar Transactions:  
-----

Transaction id:= 12547 Similarity: 0.998321504407 Class: 0  
Transaction id:= 54997 Similarity: 0.999508853561 Class: 0  
Transaction id:= 51068 Similarity: 0.999912573405 Class: 0  
Transaction id:= 9354 Similarity: 0.99991364929 Class: 0  
Transaction id:= 70036 Similarity: 0.999929394216 Class: 0  
Transaction id:= 195244 Similarity: 0.999979307216 Class: 0  
Transaction id:= 31405 Similarity: 0.999979542225 Class: 0  
Transaction id:= 40494 Similarity: 0.9999834199 Class: 0  
Transaction id:= 269968 Similarity: 0.999991538082 Class: 0  
Transaction id:= 78371 Similarity: 0.999992045336 Class: 0

-----  
Given transactions id= 78567 Class: 0  
-----

Similar Transactions:  
-----

Transaction id:= 12547 Similarity: 0.998325528857 Class: 0  
Transaction id:= 54997 Similarity: 0.999511028253 Class: 0  
Transaction id:= 51068 Similarity: 0.999913492079 Class: 0  
Transaction id:= 9354 Similarity: 0.9999145602 Class: 0  
Transaction id:= 70036 Similarity: 0.999930215587 Class: 0

Transaction id:= 70036 Similarity: 0.999990213367 Class: 0  
Transaction id:= 195244 Similarity: 0.999979750666 Class: 0  
Transaction id:= 31405 Similarity: 0.999979983506 Class: 0  
Transaction id:= 40494 Similarity: 0.999983817461 Class: 0  
Transaction id:= 269968 Similarity: 0.999991819206 Class: 0  
Transaction id:= 78371 Similarity: 0.999992317227 Class: 0

-----  
Given transactions id= 208406 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998295685931 Class: 0  
Transaction id:= 54997 Similarity: 0.99949483914 Class: 0  
Transaction id:= 51068 Similarity: 0.99990660319 Class: 0  
Transaction id:= 9354 Similarity: 0.99990772108 Class: 0  
Transaction id:= 70036 Similarity: 0.999924020394 Class: 0  
Transaction id:= 195244 Similarity: 0.999976352064 Class: 0  
Transaction id:= 31405 Similarity: 0.999976604331 Class: 0  
Transaction id:= 40494 Similarity: 0.999980765943 Class: 0  
Transaction id:= 269968 Similarity: 0.999989613009 Class: 0  
Transaction id:= 78371 Similarity: 0.999990174375 Class: 0

-----  
Given transactions id= 82731 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998375210067 Class: 0  
Transaction id:= 54997 Similarity: 0.999537713536 Class: 0  
Transaction id:= 51068 Similarity: 0.999924499585 Class: 0  
Transaction id:= 9354 Similarity: 0.999925492648 Class: 0  
Transaction id:= 70036 Similarity: 0.999940063727 Class: 0  
Transaction id:= 195244 Similarity: 0.99998488374 Class: 0  
Transaction id:= 31405 Similarity: 0.99998508565 Class: 0  
Transaction id:= 40494 Similarity: 0.999988363884 Class: 0  
Transaction id:= 269968 Similarity: 0.999994945773 Class: 0  
Transaction id:= 78371 Similarity: 0.999995334008 Class: 0

-----  
Given transactions id= 269968 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998551296572 Class: 0  
Transaction id:= 54997 Similarity: 0.999629308885 Class: 0  
Transaction id:= 51068 Similarity: 0.999958505956 Class: 0  
Transaction id:= 9354 Similarity: 0.999959227573 Class: 0  
Transaction id:= 70036 Similarity: 0.999969806701 Class: 0  
Transaction id:= 278461 Similarity: 0.999989599433 Class: 0  
Transaction id:= 243797 Similarity: 0.999989606603 Class: 0  
Transaction id:= 208406 Similarity: 0.999989613009 Class: 0  
Transaction id:= 156470 Similarity: 0.999989614979 Class: 0  
Transaction id:= 184081 Similarity: 0.999989615341 Class: 0

-----  
Given transactions id= 56350 Class: 0

Given transactions id= 53421 Class: 0

Similar Transactions:

Transaction id:= 12547 Similarity: 0.998324065525 Class: 0  
Transaction id:= 54997 Similarity: 0.999510239231 Class: 0  
Transaction id:= 51068 Similarity: 0.999913159782 Class: 0  
Transaction id:= 9354 Similarity: 0.999914230733 Class: 0  
Transaction id:= 70036 Similarity: 0.999929919139 Class: 0  
Transaction id:= 195244 Similarity: 0.999979588915 Class: 0  
Transaction id:= 31405 Similarity: 0.99997982657 Class: 0  
Transaction id:= 40494 Similarity: 0.999983672115 Class: 0  
Transaction id:= 269968 Similarity: 0.999991716633 Class: 0  
Transaction id:= 78371 Similarity: 0.99999221594 Class: 0

Given transactions id= 53421 Class: 0

Similar Transactions:

Transaction id:= 12547 Similarity: 0.998358023977 Class: 0  
Transaction id:= 54997 Similarity: 0.99952851628 Class: 0  
Transaction id:= 51068 Similarity: 0.99992075292 Class: 0  
Transaction id:= 9354 Similarity: 0.999921761594 Class: 0  
Transaction id:= 70036 Similarity: 0.999936719667 Class: 0  
Transaction id:= 195244 Similarity: 0.999983179407 Class: 0  
Transaction id:= 31405 Similarity: 0.999983388514 Class: 0  
Transaction id:= 40494 Similarity: 0.99998686266 Class: 0  
Transaction id:= 269968 Similarity: 0.99999393774 Class: 0  
Transaction id:= 78371 Similarity: 0.999994365439 Class: 0

Given transactions id= 127328 Class: 0

Similar Transactions:

Transaction id:= 12547 Similarity: 0.998432997963 Class: 0  
Transaction id:= 54997 Similarity: 0.999568303292 Class: 0  
Transaction id:= 51068 Similarity: 0.999936552491 Class: 0  
Transaction id:= 9354 Similarity: 0.999937452349 Class: 0  
Transaction id:= 70036 Similarity: 0.999950742091 Class: 0  
Transaction id:= 195244 Similarity: 0.999989986577 Class: 0  
Transaction id:= 31405 Similarity: 0.999990149577 Class: 0  
Transaction id:= 40494 Similarity: 0.999992775837 Class: 0  
Transaction id:= 278461 Similarity: 0.99999710521 Class: 0  
Transaction id:= 243797 Similarity: 0.999997109464 Class: 0

Given transactions id= 110943 Class: 0

Similar Transactions:

Transaction id:= 12547 Similarity: 0.998352275587 Class: 0  
Transaction id:= 54997 Similarity: 0.999525438956 Class: 0  
Transaction id:= 51068 Similarity: 0.999919489274 Class: 0  
Transaction id:= 9354 Similarity: 0.999920519041 Class: 0  
Transaction id:= 70036 Similarity: 0.999935593328 Class: 0  
Transaction id:= 195244 Similarity: 0.999982598249 Class: 0

Transaction id:= 31405 Similarity: 0.999982813767 Class: 0  
Transaction id:= 40494 Similarity: 0.999986350035 Class: 0  
Transaction id:= 269968 Similarity: 0.99999359088 Class: 0  
Transaction id:= 78371 Similarity: 0.999994029696 Class: 0

-----  
Given transactions id= 166768 Class: 0  
-----

Similar Transations:

-----  
Transaction id:= 12547 Similarity: 0.998299698501 Class: 0  
Transaction id:= 54997 Similarity: 0.999497022205 Class: 0  
Transaction id:= 51068 Similarity: 0.999907540947 Class: 0  
Transaction id:= 9354 Similarity: 0.999908653659 Class: 0  
Transaction id:= 70036 Similarity: 0.999924865195 Class: 0  
Transaction id:= 195244 Similarity: 0.999976822671 Class: 0  
Transaction id:= 31405 Similarity: 0.999977072249 Class: 0  
Transaction id:= 40494 Similarity: 0.999981190318 Class: 0  
Transaction id:= 269968 Similarity: 0.999989923842 Class: 0  
Transaction id:= 78371 Similarity: 0.999990477172 Class: 0

-----  
Given transactions id= 82236 Class: 0  
-----

Similar Transations:

-----  
Transaction id:= 12547 Similarity: 0.99834603913 Class: 0  
Transaction id:= 54997 Similarity: 0.999522087123 Class: 0  
Transaction id:= 51068 Similarity: 0.999918104004 Class: 0  
Transaction id:= 9354 Similarity: 0.999919141254 Class: 0  
Transaction id:= 70036 Similarity: 0.999934352951 Class: 0  
Transaction id:= 195244 Similarity: 0.999981946957 Class: 0  
Transaction id:= 31405 Similarity: 0.999982165934 Class: 0  
Transaction id:= 40494 Similarity: 0.999985770774 Class: 0  
Transaction id:= 269968 Similarity: 0.999993191225 Class: 0  
Transaction id:= 78371 Similarity: 0.999993646494 Class: 0

-----  
Given transactions id= 153129 Class: 0  
-----

Similar Transations:

-----  
Transaction id:= 12547 Similarity: 0.998302994881 Class: 0  
Transaction id:= 54997 Similarity: 0.999498812589 Class: 0  
Transaction id:= 51068 Similarity: 0.999908308515 Class: 0  
Transaction id:= 9354 Similarity: 0.999909420129 Class: 0  
Transaction id:= 70036 Similarity: 0.999925557541 Class: 0  
Transaction id:= 195244 Similarity: 0.999977205541 Class: 0  
Transaction id:= 31405 Similarity: 0.999977452503 Class: 0  
Transaction id:= 40494 Similarity: 0.999981534204 Class: 0  
Transaction id:= 269968 Similarity: 0.99999017463 Class: 0  
Transaction id:= 78371 Similarity: 0.999990719494 Class: 0

-----  
Given transactions id= 104065 Class: 0  
-----

Similar Transations:

-----  
Transaction id:= 12547 Similarity: 0.998296933206 Class: 0  
Transaction id:= 54997 Similarity: 0.999495519053 Class: 0  
Transaction id:= 51068 Similarity: 0.999906896743 Class: 0  
Transaction id:= 9354 Similarity: 0.99990800821 Class: 0  
Transaction id:= 70036 Similarity: 0.99992428317 Class: 0  
Transaction id:= 195244 Similarity: 0.999976498895 Class: 0  
Transaction id:= 31405 Similarity: 0.999976749078 Class: 0  
Transaction id:= 40494 Similarity: 0.999980897619 Class: 0  
Transaction id:= 269968 Similarity: 0.999989709858 Class: 0  
Transaction id:= 78371 Similarity: 0.999990268327 Class: 0

-----  
Given transactions id= 12547 Class: 0  
-----

Similar Transations:

-----  
Transaction id:= 278461 Similarity: 0.998295522217 Class: 0  
Transaction id:= 243797 Similarity: 0.998295601601 Class: 0  
Transaction id:= 208406 Similarity: 0.998295685931 Class: 0  
Transaction id:= 184081 Similarity: 0.998295722032 Class: 0  
Transaction id:= 178302 Similarity: 0.998295731514 Class: 0  
Transaction id:= 156470 Similarity: 0.998295754119 Class: 0  
Transaction id:= 175445 Similarity: 0.998295875828 Class: 0  
Transaction id:= 206114 Similarity: 0.9982962366 Class: 0  
Transaction id:= 237323 Similarity: 0.998296303715 Class: 0  
Transaction id:= 157068 Similarity: 0.998296393885 Class: 0

-----  
Given transactions id= 243484 Class: 0  
-----

Similar Transations:

-----  
Transaction id:= 12547 Similarity: 0.998302680267 Class: 0  
Transaction id:= 54997 Similarity: 0.999498644933 Class: 0  
Transaction id:= 51068 Similarity: 0.999908237433 Class: 0  
Transaction id:= 9354 Similarity: 0.999909339976 Class: 0  
Transaction id:= 70036 Similarity: 0.999925493809 Class: 0  
Transaction id:= 195244 Similarity: 0.999977170335 Class: 0  
Transaction id:= 31405 Similarity: 0.999977417994 Class: 0  
Transaction id:= 40494 Similarity: 0.999981502204 Class: 0  
Transaction id:= 269968 Similarity: 0.999990152268 Class: 0  
Transaction id:= 78371 Similarity: 0.999990698407 Class: 0

-----  
Given transactions id= 133458 Class: 0  
-----

Similar Transations:

-----  
Transaction id:= 12547 Similarity: 0.998296692451 Class: 0  
Transaction id:= 54997 Similarity: 0.999495387648 Class: 0  
Transaction id:= 51068 Similarity: 0.999906842138 Class: 0  
Transaction id:= 9354 Similarity: 0.999907950079 Class: 0  
Transaction id:= 70036 Similarity: 0.999924233902 Class: 0  
Transaction id:= 195244 Similarity: 0.999976470997 Class: 0  
Transaction id:= 31405 Similarity: 0.9999767225 Class: 0

Transaction id:= 40494 Similarity: 0.999980870841 Class: 0  
Transaction id:= 269968 Similarity: 0.999989690811 Class: 0  
Transaction id:= 78371 Similarity: 0.999990249939 Class: 0

-----  
Given transactions id= 122824 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998297532933 Class: 0  
Transaction id:= 54997 Similarity: 0.999495845068 Class: 0  
Transaction id:= 51068 Similarity: 0.999907037199 Class: 0  
Transaction id:= 9354 Similarity: 0.999908148242 Class: 0  
Transaction id:= 70036 Similarity: 0.999924409286 Class: 0  
Transaction id:= 195244 Similarity: 0.999976569263 Class: 0  
Transaction id:= 31405 Similarity: 0.999976819211 Class: 0  
Transaction id:= 40494 Similarity: 0.999980961199 Class: 0  
Transaction id:= 269968 Similarity: 0.999989756467 Class: 0  
Transaction id:= 78371 Similarity: 0.999990314665 Class: 0

-----  
Given transactions id= 23095 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998296607462 Class: 0  
Transaction id:= 54997 Similarity: 0.999495339874 Class: 0  
Transaction id:= 51068 Similarity: 0.999906811471 Class: 0  
Transaction id:= 9354 Similarity: 0.999907928336 Class: 0  
Transaction id:= 70036 Similarity: 0.999924209097 Class: 0  
Transaction id:= 195244 Similarity: 0.999976454504 Class: 0  
Transaction id:= 31405 Similarity: 0.999976705984 Class: 0  
Transaction id:= 40494 Similarity: 0.999980858587 Class: 0  
Transaction id:= 269968 Similarity: 0.999989679123 Class: 0  
Transaction id:= 78371 Similarity: 0.999990236662 Class: 0

-----  
Given transactions id= 215325 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998354746429 Class: 0  
Transaction id:= 54997 Similarity: 0.999526766051 Class: 0  
Transaction id:= 51068 Similarity: 0.999920036459 Class: 0  
Transaction id:= 9354 Similarity: 0.999921066814 Class: 0  
Transaction id:= 70036 Similarity: 0.999936082228 Class: 0  
Transaction id:= 195244 Similarity: 0.999982851915 Class: 0  
Transaction id:= 31405 Similarity: 0.999983065701 Class: 0  
Transaction id:= 40494 Similarity: 0.999986576125 Class: 0  
Transaction id:= 269968 Similarity: 0.999993745446 Class: 0  
Transaction id:= 78371 Similarity: 0.999994178621 Class: 0

-----  
Given transactions id= 216983 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.9983012928 Class: 0  
Transaction id:= 54997 Similarity: 0.9994978897 Class: 0  
Transaction id:= 51068 Similarity: 0.99990791345 Class: 0  
Transaction id:= 9354 Similarity: 0.999909015115 Class: 0  
Transaction id:= 70036 Similarity: 0.999925201571 Class: 0  
Transaction id:= 195244 Similarity: 0.999977008441 Class: 0  
Transaction id:= 31405 Similarity: 0.999977256893 Class: 0  
Transaction id:= 40494 Similarity: 0.999981354917 Class: 0  
Transaction id:= 269968 Similarity: 0.999990045588 Class: 0  
Transaction id:= 78371 Similarity: 0.999990596343 Class: 0

-----  
Given transactions id= 205292 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998319264375 Class: 0  
Transaction id:= 54997 Similarity: 0.999507642385 Class: 0  
Transaction id:= 51068 Similarity: 0.99991206391 Class: 0  
Transaction id:= 9354 Similarity: 0.999913140873 Class: 0  
Transaction id:= 70036 Similarity: 0.999928936413 Class: 0  
Transaction id:= 195244 Similarity: 0.999979058713 Class: 0  
Transaction id:= 31405 Similarity: 0.999979296054 Class: 0  
Transaction id:= 40494 Similarity: 0.999983196624 Class: 0  
Transaction id:= 269968 Similarity: 0.99999137871 Class: 0  
Transaction id:= 78371 Similarity: 0.999991889207 Class: 0

-----  
Given transactions id= 266614 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.99830166919 Class: 0  
Transaction id:= 54997 Similarity: 0.999498094001 Class: 0  
Transaction id:= 51068 Similarity: 0.999908001062 Class: 0  
Transaction id:= 9354 Similarity: 0.9999091045 Class: 0  
Transaction id:= 70036 Similarity: 0.999925279647 Class: 0  
Transaction id:= 195244 Similarity: 0.999977052406 Class: 0  
Transaction id:= 31405 Similarity: 0.999977300365 Class: 0  
Transaction id:= 40494 Similarity: 0.999981395211 Class: 0  
Transaction id:= 269968 Similarity: 0.999990074478 Class: 0  
Transaction id:= 78371 Similarity: 0.999990624336 Class: 0

-----  
Given transactions id= 20224 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998520912574 Class: 0  
Transaction id:= 54997 Similarity: 0.999613843398 Class: 0  
Transaction id:= 51068 Similarity: 0.999953222291 Class: 0  
Transaction id:= 9354 Similarity: 0.999953975823 Class: 0  
Transaction id:= 70036 Similarity: 0.999965269489 Class: 0  
Transaction id:= 278461 Similarity: 0.999991985988 Class: 0  
Transaction id:= 243797 Similarity: 0.999991989993 Class: 0  
Transaction id:= 208406 Similarity: 0.999991994926 Class: 0  
-----



Transaction id:= 178302 Similarity: 0.99999199805 Class: 0  
Transaction id:= 156470 Similarity: 0.999991998532 Class: 0

-----  
Given transactions id= 74323 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.99830574197 Class: 0  
Transaction id:= 54997 Similarity: 0.999500305807 Class: 0  
Transaction id:= 51068 Similarity: 0.999908948807 Class: 0  
Transaction id:= 9354 Similarity: 0.999910051494 Class: 0  
Transaction id:= 70036 Similarity: 0.999926128833 Class: 0  
Transaction id:= 195244 Similarity: 0.999977519893 Class: 0  
Transaction id:= 31405 Similarity: 0.99997776579 Class: 0  
Transaction id:= 40494 Similarity: 0.999981819796 Class: 0  
Transaction id:= 269968 Similarity: 0.999990379322 Class: 0  
Transaction id:= 78371 Similarity: 0.99999091986 Class: 0

-----  
Given transactions id= 156470 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998295754119 Class: 0  
Transaction id:= 54997 Similarity: 0.999494872255 Class: 0  
Transaction id:= 51068 Similarity: 0.999906616508 Class: 0  
Transaction id:= 9354 Similarity: 0.999907735345 Class: 0  
Transaction id:= 70036 Similarity: 0.999924035846 Class: 0  
Transaction id:= 195244 Similarity: 0.999976357348 Class: 0  
Transaction id:= 31405 Similarity: 0.999976610203 Class: 0  
Transaction id:= 40494 Similarity: 0.999980766804 Class: 0  
Transaction id:= 269968 Similarity: 0.999989614979 Class: 0  
Transaction id:= 78371 Similarity: 0.999990175235 Class: 0

-----  
Given transactions id= 194364 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998307679668 Class: 0  
Transaction id:= 54997 Similarity: 0.999501361417 Class: 0  
Transaction id:= 51068 Similarity: 0.999909394977 Class: 0  
Transaction id:= 9354 Similarity: 0.999910492336 Class: 0  
Transaction id:= 70036 Similarity: 0.999926537063 Class: 0  
Transaction id:= 195244 Similarity: 0.999977746867 Class: 0  
Transaction id:= 31405 Similarity: 0.999977990674 Class: 0  
Transaction id:= 40494 Similarity: 0.999982021672 Class: 0  
Transaction id:= 269968 Similarity: 0.999990530182 Class: 0  
Transaction id:= 78371 Similarity: 0.999991065527 Class: 0

-----  
Given transactions id= 195244 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998307679668 Class: 0

Transaction id:= 12547 Similarity: 0.998673398805 Class: 0  
Transaction id:= 54997 Similarity: 0.999689760059 Class: 0  
Transaction id:= 278461 Similarity: 0.999976332443 Class: 0  
Transaction id:= 243797 Similarity: 0.999976342555 Class: 0  
Transaction id:= 208406 Similarity: 0.999976352064 Class: 0  
Transaction id:= 184081 Similarity: 0.99997635679 Class: 0  
Transaction id:= 156470 Similarity: 0.999976357348 Class: 0  
Transaction id:= 178302 Similarity: 0.999976357493 Class: 0  
Transaction id:= 175445 Similarity: 0.999976374593 Class: 0  
Transaction id:= 206114 Similarity: 0.999976417505 Class: 0

-----  
Given transactions id= 118755 Class: 0  
-----

Similar Transactions:

-----  
Transaction id:= 12547 Similarity: 0.998326152026 Class: 0  
Transaction id:= 54997 Similarity: 0.999511368744 Class: 0  
Transaction id:= 51068 Similarity: 0.999913633007 Class: 0  
Transaction id:= 9354 Similarity: 0.999914699136 Class: 0  
Transaction id:= 70036 Similarity: 0.999930346072 Class: 0  
Transaction id:= 195244 Similarity: 0.999979820676 Class: 0  
Transaction id:= 31405 Similarity: 0.999980052616 Class: 0  
Transaction id:= 40494 Similarity: 0.999983878518 Class: 0  
Transaction id:= 269968 Similarity: 0.999991865086 Class: 0  
Transaction id:= 78371 Similarity: 0.999992360552 Class: 0