In [2]:
```python
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
```
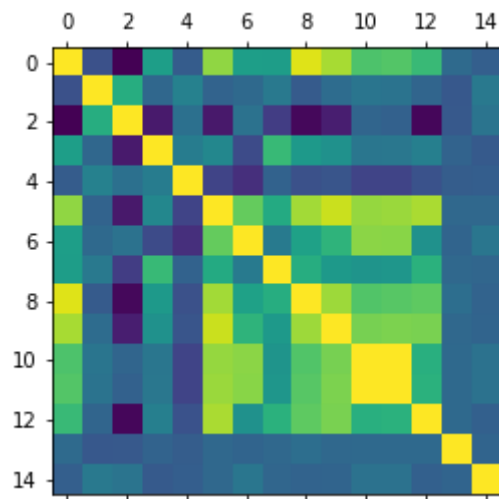
In [3]:
```python
data = pd.read_csv("/home/scarface/Desktop/sem-
3/capStone/trainN.csv")
```
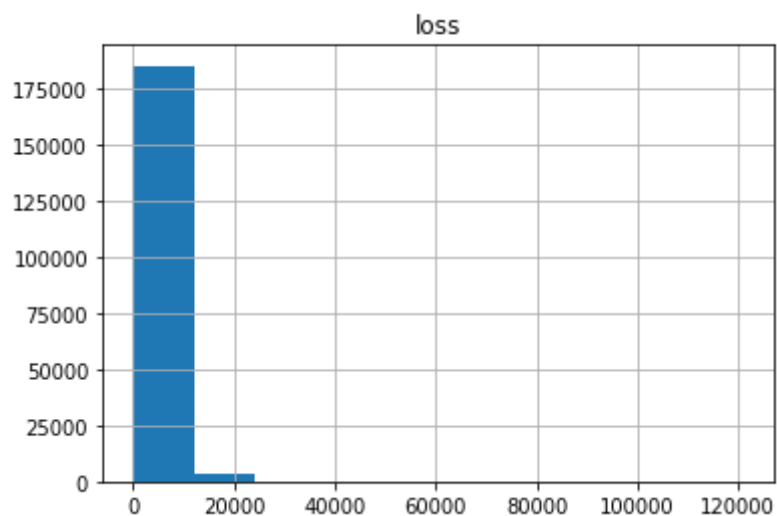
In [4]:
```python
conVars = data.ix[:,-15:]
catVars = data.ix[:,:-15]
lossVar = data.ix[:,-1:]
```
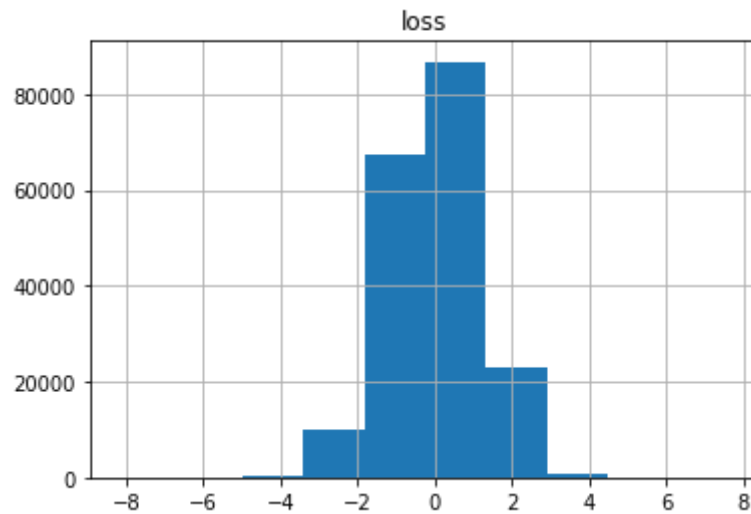
In [4]:
```python
plt.matshow(conVars.corr())
plt.show()
```
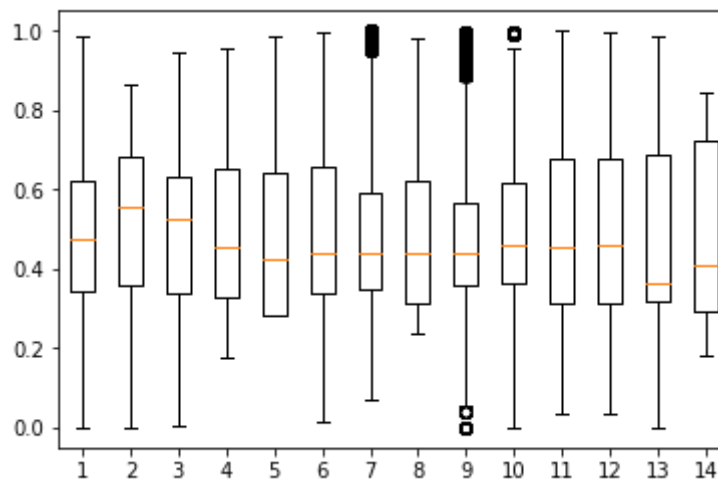

In [5]:
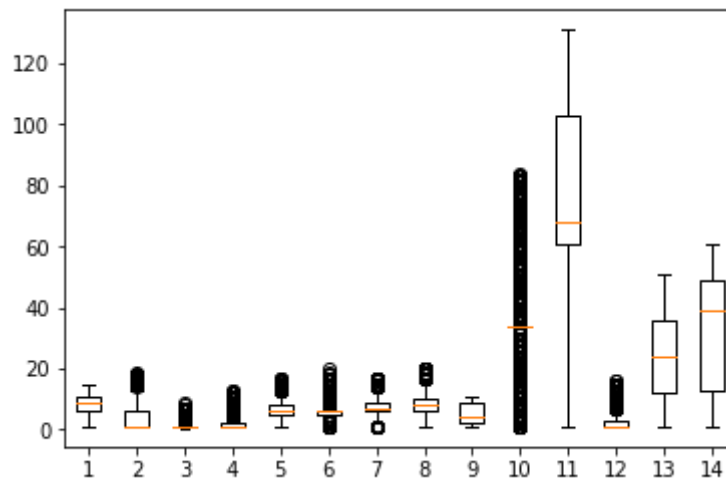```python
plt.show(lossVar.hist())
```

In [66]:
```python
pChg = lossVar.pct_change()
lossLog = np.log(1+pChg)
#print (lossLog.head(n=5))

plt.show(lossLog.hist())
```


In [17]:
```python
#print conVars.ix[:,0:1]
plt.boxplot(conVars.ix[:,0:14].as_matrix())
plt.show()
#7, 9, 10
```
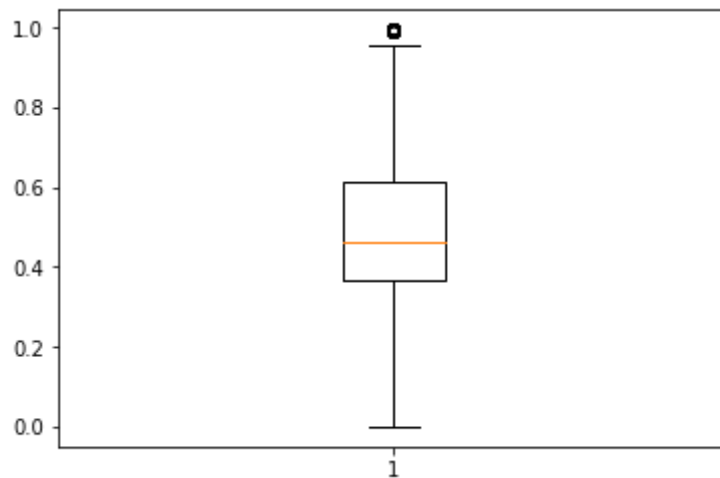
```
In [33]: plt.boxplot(catVars.ix[:,100:114].as_matrix())
         plt.show()
         #2, 4, 8, 9, 10-20,
```
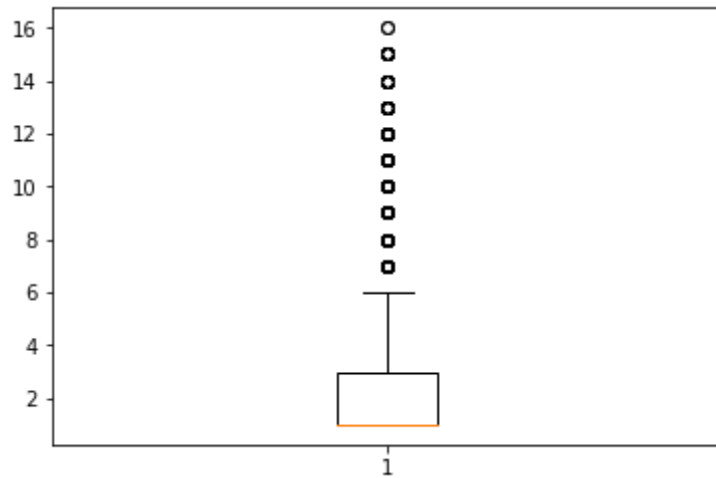


```
In [34]: from sklearn import svm
         clf = svm.SVC(gamma=0.001, C=100.)
```

```
In [64]: trainD = data[:150000]
         testD = data.ix[150000:,:-1]
```
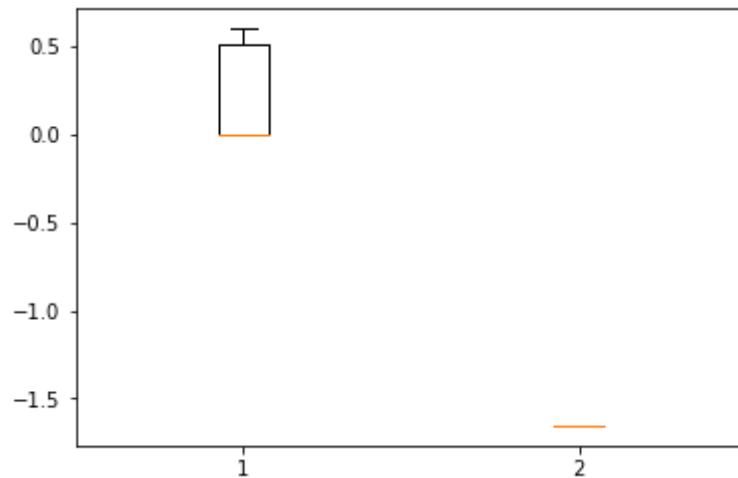
```
In [6]: plt.boxplot(conVars.ix[:,9:10].as_matrix())
        plt.show()
```

In [12]:
```python
plt.boxplot(catVars.ix[:,111:112].as_matrix())
plt.show()
```


In [13]:
```python
from scipy.stats import boxcox
boxcox_transformed_data = boxcox(catVars.ix[:,111:112])
plt.boxplot(boxcox_transformed_data)
plt.show()
```

In [11]:
```
catChg = catVars.ix[:,109:110].pct_change()
catLog = np.log(1+catChg)
boxcox_transformed_data = boxcox(catLog)
```

```
/home/scarface/.local/lib/python2.7/site-packages/scipy/stats/moresta
ts.py:1034: RuntimeWarning: invalid value encountered in less_equal
  if any(x <= 0):


---------------------------------------------------------------------
------
ValueError                                Traceback (most recent call
 last)
<ipython-input-11-906e82d41378> in <module>()
      1 catChg = catVars.ix[:,109:110].pct_change()
      2 catLog = np.log(1+catChg)
----> 3 boxcox_transformed_data = boxcox(catLog)

/home/scarface/.local/lib/python2.7/site-packages/scipy/stats/moresta
ts.pyc in boxcox(x, lmbda, alpha)
   1033
   1034      if any(x <= 0):
-> 1035          raise ValueError("Data must be positive.")
   1036
   1037      if lmbda is not None:  # single transformation

ValueError: Data must be positive.
```

In [ ]: