```
from sklearn import datasets
from sklearn.feature_selection import VarianceThreshold
iris=datasets.load iris()
X=iris.data
y=iris.target
thresholder=VarianceThreshold(threshold=.5)
X_high_variance=thresholder.fit_transform(X)
X high variance[0:5]
     array([[5.1, 1.4, 0.2],
            [4.9, 1.4, 0.2],
            [4.7, 1.3, 0.2],
            [4.6, 1.5, 0.2],
            [5., 1.4, 0.2]])
thresholder.fit(X).variances_
     array([0.68112222, 0.18871289, 3.09550267, 0.57713289])
import pandas as pd
import numpy as np
X=np.array([[1,1,1],
           [2,2,0],
           [3,3,1],
           [4,4,0],
           [5,5,1],
           [6,6,0],
           [7,7,1],
           [8,7,0],
           [9,7,1]])
df=pd.DataFrame(X)
df
```

Next steps:

8 9 7 1

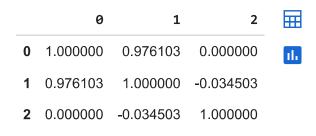
Generate code with df

View recommended plots

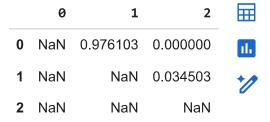
corr_matrix = df.corr().abs()
upper = corr_matrix.where(np.triu(np.ones(corr_matrix.shape), k=1).astype(bool))
to_drop = [column for column in upper.columns if any(upper[column] > 0.95)]
df.drop(df[to_drop], axis=1)

- 0 2 | | |
- 0 1 1
- 1 2 0
- **2** 3 1
- **3** 4 0
- **4** 5 1
- **5** 6 0
- **6** 7 1
- **7** 8 0
- **8** 9 1

df.corr()



upper



Next steps: Generate code with upper

View recommended plots

df.drop(df[to_drop],axis=1)

- **4** 5 1
- **5** 6 0
- **6** 7 1
- **7** 8 0
- **8** 9 1

```
#Load libraries
from sklearn.datasets import load_iris
from sklearn.feature_selection import SelectKBest
from sklearn.feature_selection import chi2
# Load iris data
iris=load_iris()
#Create features and target
X=iris.data
y=iris.target
#Convert to categorical data by converting data to integers
X = X.astype(int)
#Select two features with highest chi-squared statistics
from sklearn.datasets import load iris
from sklearn.feature_selection import SelectKBest
from sklearn.feature_selection import f_classif
iris=load iris()
X=iris.data
y=iris.target
fvalue_selector=SelectKBest(f_classif,k=2)
X_kbest=fvalue_selector.fit_transform(X,y)
print('Original number of features:',X.shape[1])
print('Reduced number of features:',X_kbest.shape[1])
     Original number of features: 4
     Reduced number of features: 2
```