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Expt. No	Page No 43
Program 8_	
in a csv file. Use the same date	of clubs showed
with the	TOUTH OF THEFT
	Old City
	n My hiprary
dasses IAPE in the program.	J
import mat plotub. pyplot as put	
from sierewin import datasets	
from sklearn cluster import KNeans	_
import stelearn metrics as sm	
import pandas as pd	
import numpy as np.	
ins = datusets, load - ins()	
x = pd. Dato Frame (in's. duta)	
X. wlumns = ['sepal-Length', 'sepal-width, 'Per	u_ Length',
Petal -u	width' J
y = pd. Data Framc (ins. target)	
y. columns = [Targeti']	
model = KMeans (n. dusters = 3)	
modu. fit(x)	
modu-labels	
Plt. figure (fig size = (14,73)	
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from sklean import preprocessing sales = preprocessing. Stand and Stand () sales. fit(x) xso = salar. transform(x) xt = pd. DataFrame (xso, columns = X. columns) from skleatin. mixture import branssicion xaire. gmm = baussian Mixture (n_windownent = 3) gmm = pt(xx) y-duster-gram = gmm. predict (xs) plt. Support (2, 2, 3) plt. Stanter (x- Petus Length, x-Petus Width, c= colormap Ly-duster-gmj, s=40) print('The accuracy sixe of EM:', sm. accuracy sixe(y, y-duster-gm)) print('The winfusion matrix of EM:', sm. confusion matrix (y, y-duster-gmm))		Date
gaster fit(x) xsa = saylar transform(x) xs = pa. DataFrame (xsa, columns = X columns) from sklearn mix ture import branssicumix ture. gmm = 6 au ssian Mix ture (n wmponent = 3) gmm - fit(xs) y. cluster gmm = gmm. predict (xs) plt. support (2, 2, 3) plt. scatter (x. Petal Length, x. Petal Width, c=volormap Ly cluster gm], 5=40) put title ('amm classification') print ('the accuracy sure of Em:', Sm. accuracy Sure(y)	Expt. No8	
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y. Wuster_gmm= gmm. preclid (xs) plt. Support (2, 2, 3) plt. Scatter (x. Petru-Length, x. Petru-Wiath, c=volormap [y-duster-gm], 5=40) plt. title ('GMM Classification') print('The accuracy sure of EM:', Sm. accuracy-Sure(y,	grand situation (n-wmponents = 3)	
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print 'The accuracy sure of EM:', Sm. accuracy Sure(4)	Ly-cluster	gm], 5=40)
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print ('The wnfusion matrix of EM:), sm. confusion matrix (y, y-cluster_gmm))	print 'The accuracy sure of FM:' Sm acc	
print ('The winfusion matrix of the:'), sm. unfusion matrix (y, y-uuser_gmm))) ,	way sure(y,
(y, y-cluster_gmm))	print ('The wonfusion matrix of Em: ', sm.	confession massix
	Cy, y	- Cuskr_gmm))
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output
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        sure of u. mean; 0, 24
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   confession matrix of K-mean: [[0 50 0]
The
[45
   0 27
   0 36]]
C14
   accuracy sure of EM: 0.0
The
   confusion matrix of EM's [ [0
The
[5
     45]
   0 0]]
 [50
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