import numpy as np import pandas as pd

df = pd.read_csv("penguins_size.csv")
df.head()

	species	island	culmen_length_mm	culmen_depth_mm	flipper_length_mm	body_mass_g	sex	==
0	Adelie	Torgersen	39.1	18.7	181.0	3750.0	MALE	ili
1	Adelie	Torgersen	39.5	17.4	186.0	3800.0	FEMALE	
2	Adelie	Torgersen	40.3	18.0	195.0	3250.0	FEMALE	
3	Adelie	Torgersen	NaN	NaN	NaN	NaN	NaN	
4	Adelie	Torgersen	36.7	19.3	193.0	3450.0	FEMALE	

from matplotlib import rcParams
import seaborn as sns

sns.distplot(df.culmen_length_mm)

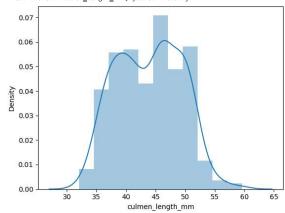
<ipython-input-38-24e9b5890c61>:1: UserWarning:

`distplot` is a deprecated function and will be removed in seaborn v0.14.0.

Please adapt your code to use either `displot` (a figure-level function with similar flexibility) or `histplot` (an axes-level function for histograms).

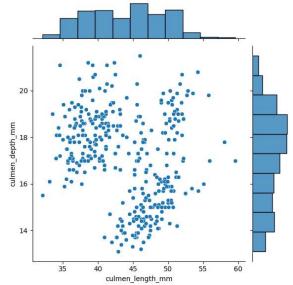
For a guide to updating your code to use the new functions, please see https://gist.github.com/mwaskom/de44147ed2974457ad637275@bbe5751

sns.distplot(df.culmen_length_mm)
<Axes: xlabel='culmen_length_mm', ylabel='Density'>

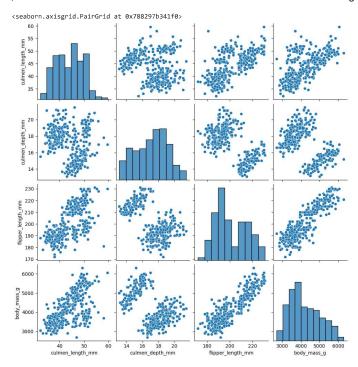


sns.jointplot(x='culmen_length_mm',y='culmen_depth_mm',data=df)

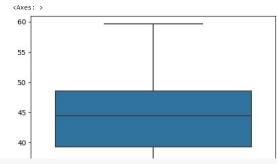
<seaborn.axisgrid.JointGrid at 0x7882979da3b0>



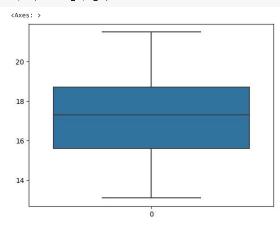
sns.pairplot(df)



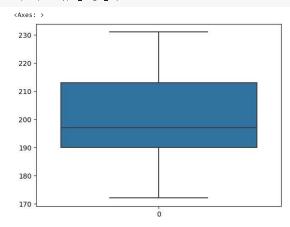
df.describe()				
cu	lmen_length_mm	culmen_depth_mm	flipper_length_mm	body_mass_g
count	342.000000	342.000000	342.000000	342.000000
mean	43.921930	17.151170	200.915205	4201.754386
std	5.459584	1.974793	14.061714	801.954536
min	32.100000	13.100000	172.000000	2700.000000
25%	39.225000	15.600000	190.000000	3550.000000
50%	44.450000	17.300000	197.000000	4050.000000
75%	48.500000	18.700000	213.000000	4750.000000
max	59.600000	21,500000	231.000000	6300.000000
df.isnull().sum	()			
df['culmen_dept df['flipper_len df['body_mass_g	th_mm 2 ngth_mm 2 g 2 fo 10 64 th_mm'].fillna(d- gth_mm'].fillna(df['be a(df['sex'].mode)	f['culmen_depth_r (df['flipper_leng	n_mm'].median(),inp mm'].median(),inpla gth_mm'].median(),i lan(),inplace=True) ace=True)	ce=True) nplace=True)
species island culmen_ler culmen_der flipper_le body_mass_ sex dtype: int	gth_mm 0 th_mm 0 ngth_mm 0			
sns.boxplot(df.				



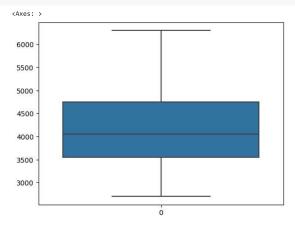
sns.boxplot(df.culmen_depth_mm)



sns.boxplot(df.flipper_length_mm)



$\verb|sns.boxplot(df.body_mass_g)|$



```
from sklearn.preprocessing import LabelEncoder
le=LabelEncoder()
```

```
df['sex']=le.fit_transform(df['sex'])
df['species'] = le.fit_transform(df['species'])
df['island'] = le.fit_transform(df['island'])
df.head()
```

Y_test.shape (69,)

0	,					_length_mm bo		
	() 2		39.10	18.7	181.0	375	0.0
1	() 2		39.50	17.4	186.0	380	
2	() 2		40.30	18.0	195.0	325	
3	() 2		44.45	17.3	197.0		0.0
4	(36.70	19.3	193.0	345	
4		,		00.70	10.0	100.0		
f.corr()	.speci	es.sort_v	alues(asce	nding=False)				
spec	ries		1.000000					
flip	oper_le	ngth_mm	0.850819 0.747547					
culm	/_mass_; men_len;		0.728706					
sex isla			-0.003823 -0.635659					
culm	nen_dep	th_mm	-0.741282 e: float64					
ivalile	e. spec.	ies, utyp	e. Tioaco4					
=df.drop	o(colum	ns=['spec	ies'],axis	=1)				
head()	,		**	,				
	island	culmen :	ength mm	culmen depth mm	flipper_length_	nm body mass a	sex	
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								ıl.
1	2		39.50	17.4				
2	2		40.30	18.0				
3	2		44.45	17.3	197	.0 4050.0) 2	
4	2		36.70	19.3	193	.0 3450.0) 1	
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oom sklens=MinMa_new=pd. new=pd. new.hea	earn.proaxScaler.DataFrad() island 1.0 1.0 1.0 1.0	eprocessi ^() ame(mms.f culmen_:	ng import it_transfor .ength_mm 0.254545 0.269091 0.298182 0.449091 0.167273	culmen_depth_mm	flipper_length_ 0.1525 0.2372 0.3898 0.4237 0.3559	0.291667 38 0.305556 31 0.152778 29 0.375000	1.0 0.5 0.5 0.5 1.0	
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✓ 0s completed at 6:36 PM