import seaborn as sns
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
add Codeadd Markdown



roll_no = [1,2,3,4,5,6,7,8,9,10,11,12,13,14,15] marks = [23,45,67,89,56,34,21,45,67,32,67,76,33,21,45] sample_df = pd.DataFrame({"Rollno":roll_no, "Marks":marks}) sample_df.head()

[12]:

	Rollno	Marks
0	1	23
1	2	45
2	3	67
3	4	89
4	5	56

add Codeadd Markdown

#Line Plots****

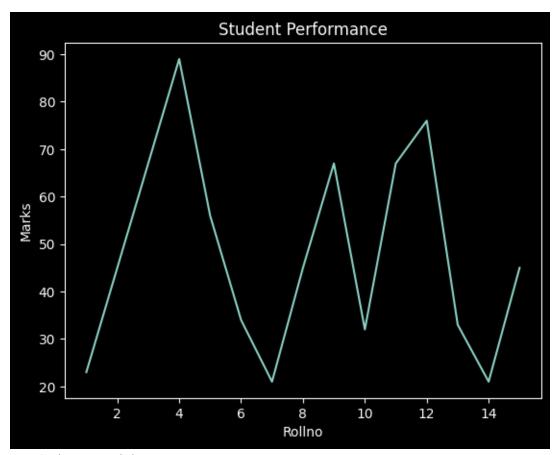
add Codeadd Markdown



sns.lineplot(x = 'Rollno', y='Marks', data = sample_df)
plt.title('Student Performance')

Text(0.5, 1.0, 'Student Performance')

[15]:



add Codeadd Markdown



seaborn_df = sns.load_dataset('planets')
seaborn_df.head()

[16]:

	method	number	orbital_period	mass	distance	year
0	Radial Velocity	1	269.300	7.10	77.40	2006
1	Radial Velocity	1	874.774	2.21	56.95	2008
2	Radial Velocity	1	763.000	2.60	19.84	2011
3	Radial Velocity	1	326.030	19.40	110.62	2007

method number orbital_period mass distance year

4 Radial Velocity 1 516.220 10.50 119.47 2009

add Codeadd Markdown



df = pd.read_csv('/kaggle/input/hr-dataset/hr_data.csv')
df.head()

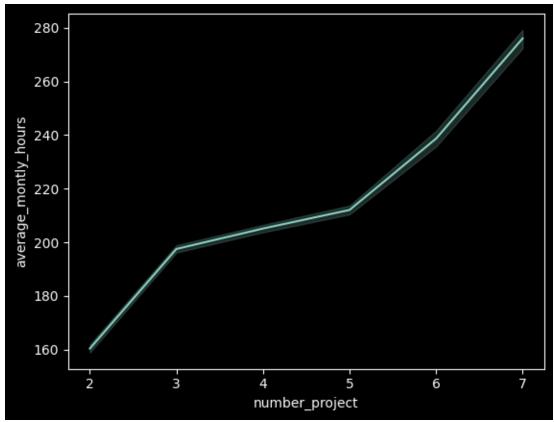
[19]: Work_ac employe number_p average_montl time_spend_c le promotion_last depart salar e_id roject y_hours ompany cident ft _5years ment 0 1003 2 157 3 0 1 0 sales low medi 1 1005 5 262 6 0 1 0 sales um medi 2 1486 7 272 4 0 1 0 sales um 3 1038 5 223 5 1 0 sales low 1057 2 159 3 1 0 sales low

add Codeadd Markdown



sns.lineplot(x ='number_project', y ='average_montly_hours', data = df)

[25]:



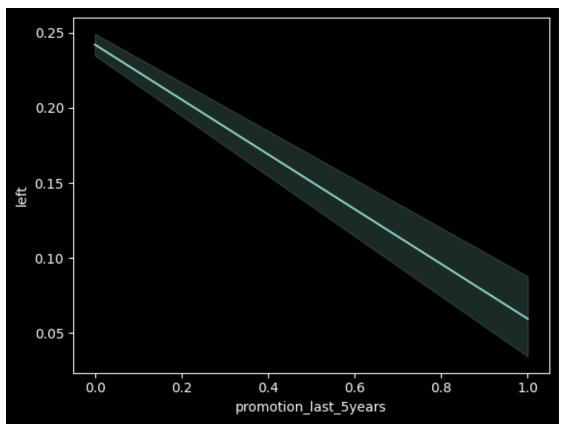
add Codeadd Markdown



sns.lineplot(x='promotion_last_5years', y='left', data= df)

<AxesSubplot: xlabel='promotion_last_5years', ylabel='left'>

[26]:



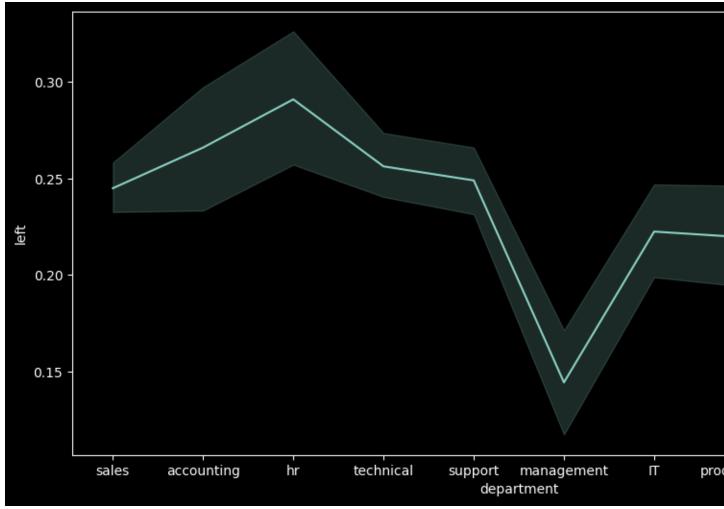
add Codeadd Markdown



plt.figure(figsize = (12,6)) sns.lineplot(x='department', y='left', data=df)

<AxesSubplot: xlabel='department', ylabel='left'>

[28]:

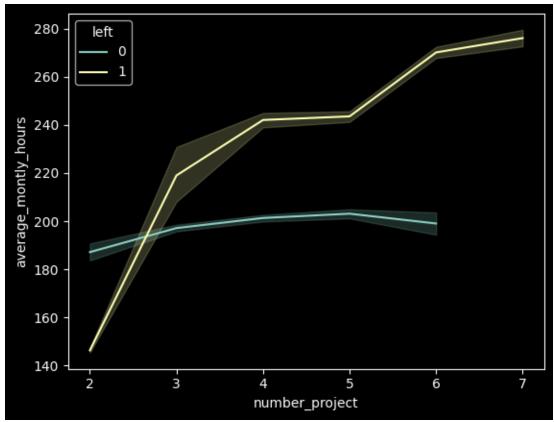


add Codeadd Markdown



sns.lineplot(x ='number_project', y ='average_montly_hours', data = df, hue='left')

[29]:

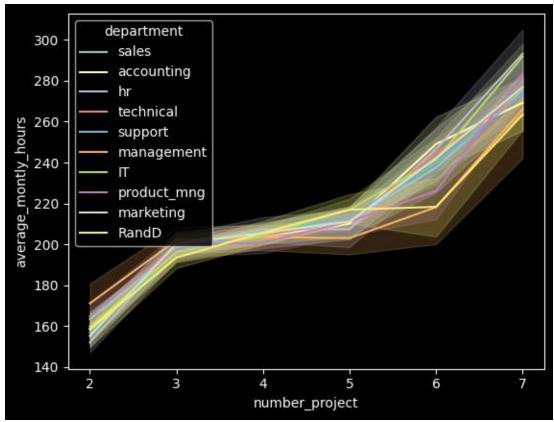


add Codeadd Markdown



sns.lineplot(x ='number_project', y ='average_montly_hours', data = df, hue='department')

[31]:

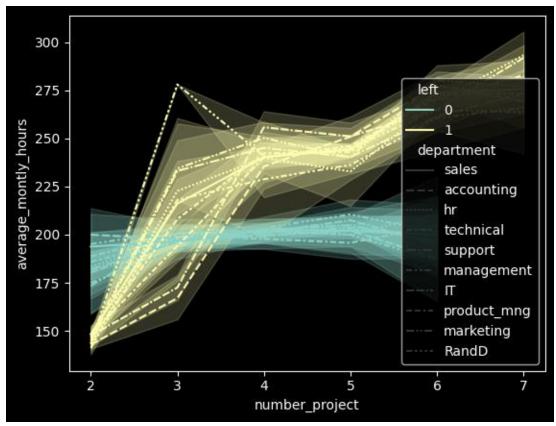


add Codeadd Markdown



sns.lineplot(x ='number_project', y ='average_montly_hours', data = df, hue='left', style ='department')

[32]:



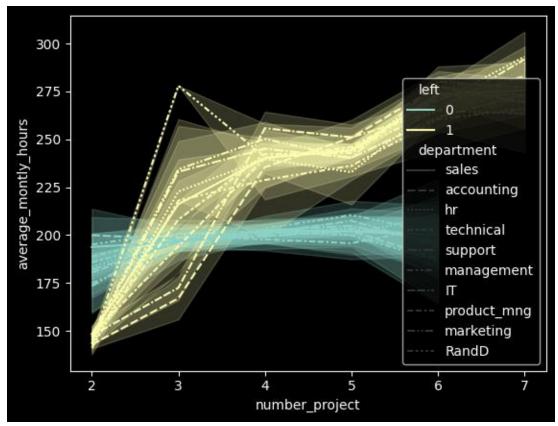
add Codeadd Markdown



sns.lineplot(x ='number_project', y ='average_montly_hours', data = df, hue='left', style='department', legend='full')

<AxesSubplot: xlabel='number_project', ylabel='average_montly_hours'>

[35]:



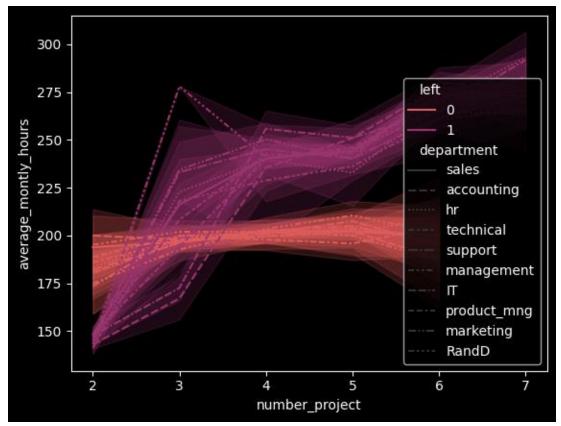
add Codeadd Markdown



sns.lineplot(x ='number_project', y ='average_montly_hours', data = df, hue='left', style = 'department', legend = 'full', palette = 'flare')

<AxesSubplot: xlabel='number_project', ylabel='average_montly_hours'>

[38]:



add Codeadd Markdown

#Dist Plot****

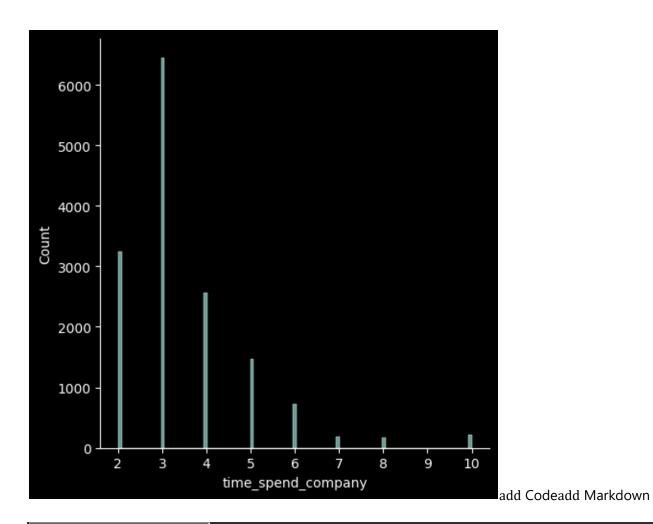
add Codeadd Markdown



sns.displot(df['time_spend_company'])

<seaborn.axisgrid.FacetGrid at 0x7b6aa41c4160>

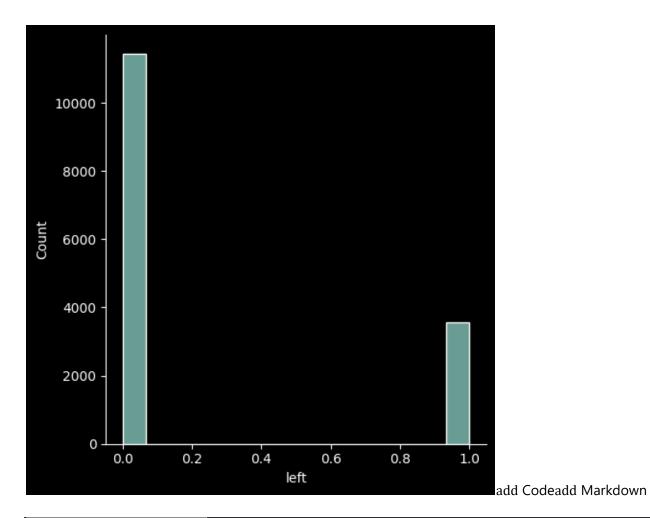
[42]:





<seaborn.axisgrid.FacetGrid at 0x7b6a9fc2fdc0>

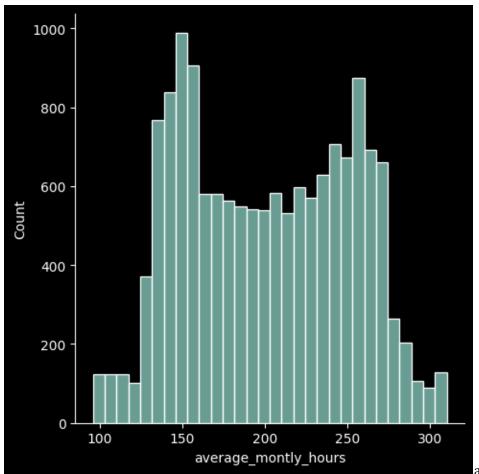
[44]:



sns.displot(df['average_montly_hours'])

<seaborn.axisgrid.FacetGrid at 0x7b6a9fb498d0>

[46]:



add Codeadd Markdown



df.describe()

[47]:

promotion_last_ 5years	left	Work_acci dent	time_spend_co mpany	average_montly _hours	number_pr oject	employee _id	
14999.000000	14999.00 0000	14999.0000 00	14999.000000	14999.000000	14999.0000 00	14999.00 0000	cou nt
0.021268	0.238083	0.144610	3.498233	201.050337	3.803054	45424.62 7575	me an
0.144281	0.425924	0.351719	1.460136	49.943099	1.232592	25915.90 0127	std

	employee _id	number_pr oject	average_montly _hours	time_spend_co mpany	Work_acci dent	left	promotion_last_ 5years
min	1003.000 000	2.000000	96.000000	2.000000	0.000000	0.000000	0.000000
25 %	22872.50 0000	3.000000	156.000000	3.000000	0.000000	0.000000	0.000000
50 %	45448.00 0000	4.000000	200.000000	3.000000	0.000000	0.000000	0.000000
75 %	67480.50 0000	5.000000	245.000000	4.000000	0.000000	0.000000	0.000000
ma x	99815.00 0000	7.000000	310.000000	10.000000	1.000000	1.000000	1.000000

add Codeadd Markdown



bins = [2,3,4,5,6,7,8,9,10]

sns.distplot(df['time_spend_company'], bins = bins)

plt.xticks(bins)

/tmp/ipykernel_34/2817653674.py:2: 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/de44147ed2974457ad6372750bbe5751

sns.distplot(df['time_spend_company'], bins = bins)

[48]:

([<matplotlib.axis.XTick at 0x7b6aa70d9750>, <matplotlib.axis.XTick at 0x7b6aa70dbf10>,

<matplotlib.axis.XTick at 0x7b6aa6e2b100>,

<matplotlib.axis.XTick at 0x7b6aa70012a0>,

<matplotlib.axis.XTick at 0x7b6aaa886e60>,

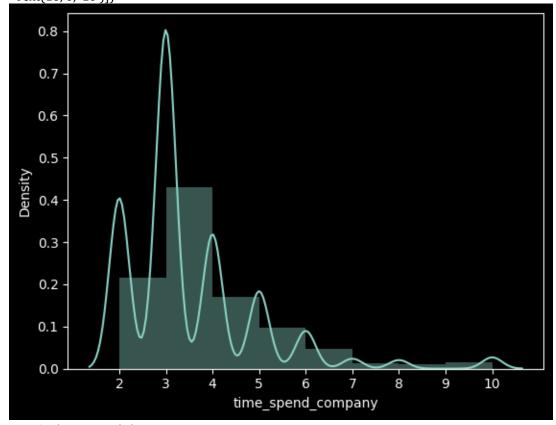
<matplotlib.axis.XTick at 0x7b6aaa886980>,

<matplotlib.axis.XTick at 0x7b6b025b7520>,

<matplotlib.axis.XTick at 0x7b6aa70db2e0>,

<matplotlib.axis.XTick at 0x7b6aa724a3b0>],

```
[Text(2, 0, '2'),
Text(3, 0, '3'),
Text(4, 0, '4'),
Text(5, 0, '5'),
Text(6, 0, '6'),
Text(7, 0, '7'),
Text(8, 0, '8'),
Text(9, 0, '9'),
Text(10, 0, '10')])
```



add Codeadd Markdown



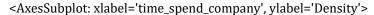
sns.distplot(df['time_spend_company'], bins = bins)
/tmp/ipykernel_34/1754858012.py:1: UserWarning:

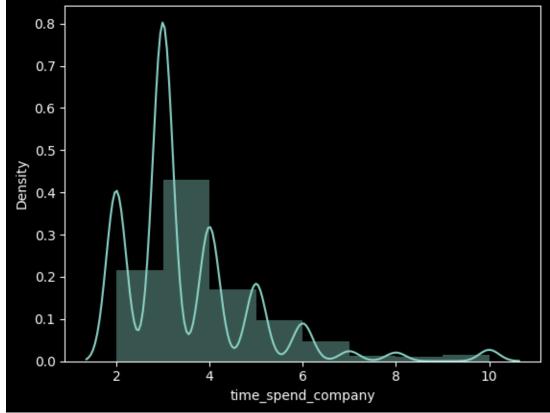
'distplot' is a deprecated function and will be removed in seaborn v0.14.0.

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/de44147ed2974457ad6372750bbe5751

sns.distplot(df['time_spend_company'], bins = bins)





add Codeadd Markdown

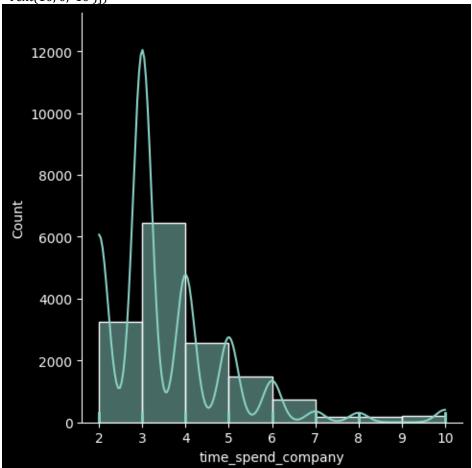


sns.displot(df['time_spend_company'], bins = bins, kde = **True**, rug = **True**) plt.xticks(bins)

[55]:

```
([<matplotlib.axis.XTick at 0x7b6a9ea77340>,
<matplotlib.axis.XTick at 0x7b6a9ea77310>,
<matplotlib.axis.XTick at 0x7b6a9ea92fb0>,
<matplotlib.axis.XTick at 0x7b6a9ea938e0>,
<matplotlib.axis.XTick at 0x7b6a9ea93fa0>,
<matplotlib.axis.XTick at 0x7b6a9eab4a90>,
<matplotlib.axis.XTick at 0x7b6a9eab7e50>,
<matplotlib.axis.XTick at 0x7b6a9eada620>,
<matplotlib.axis.XTick at 0x7b6a9eadae00>],
[Text(2, 0, '2'),
Text(3, 0, '3'),
Text(4, 0, '4'),
Text(5, 0, '5'),
Text(6, 0, '6'),
Text(7, 0, '7'),
Text(8, 0, '8'),
```

Text(9, 0, '9'), Text(10, 0, '10')])



add Codeadd Markdown



sns.distplot(df['time_spend_company'], bins = bins, rug = **True**, hist_kws ={'color':'red', 'edgecolor':'blue','linewidth': 3, 'alpha': 0.5}) /tmp/ipykernel_34/3071660938.py:1: UserWarning:

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

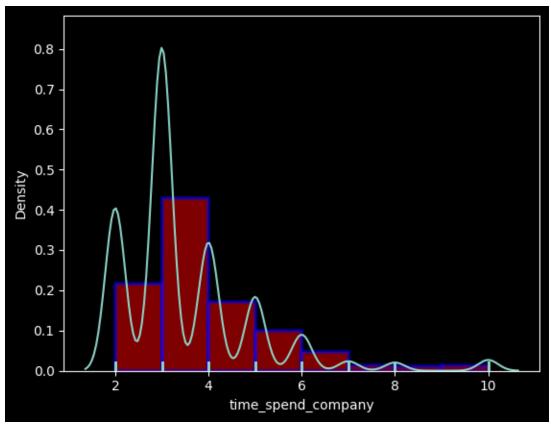
Please adapt your code to use either 'displot' (a figure-level function with similar flexibility) or 'histplot' (an axes-level function for histograms).

For a guide to updating your code to use the new functions, please see https://gist.github.com/mwaskom/de44147ed2974457ad6372750bbe5751

sns.distplot(df['time_spend_company'], bins = bins, rug = True, hist_kws ={'color':'red', 'edgecolor':'blue','lin ewidth': 3, 'alpha': 0.5})

[56]:

<AxesSubplot: xlabel='time_spend_company', ylabel='Density'>



add Codeadd Markdown



sns.distplot(df['time_spend_company'], bins = bins, rug = True, hist_kws ={'color':'red',
'edgecolor':'blue','linewidth': 3, 'alpha': 0.5}, kde_kws = {'color':'orange', 'linewidth': 3})

/tmp/ipykernel_34/778030938.py:1: UserWarning:

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

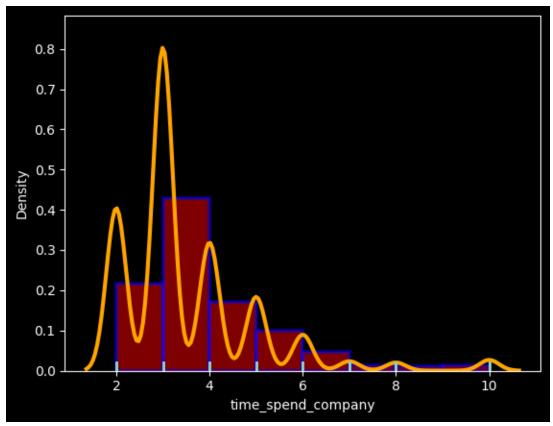
Please adapt your code to use either 'displot' (a figure-level function with similar flexibility) or 'histplot' (an axes-level function for histograms).

For a guide to updating your code to use the new functions, please see https://gist.github.com/mwaskom/de44147ed2974457ad6372750bbe5751

 $sns.distplot(df['time_spend_company'], bins = bins, rug = True, hist_kws = \{'color':'red', 'edgecolor':'blue', 'linewidth': 3, 'alpha': 0.5\}, kde_kws = \{'color':'orange', 'linewidth': 3\})$

[57]:

<AxesSubplot: xlabel='time_spend_company', ylabel='Density'>



add Codeadd Markdown



sns.distplot(df['time_spend_company'], bins = bins, rug = **True**, color = 'green') plt.xticks(bins)

/tmp/ipykernel_34/2043402927.py: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).

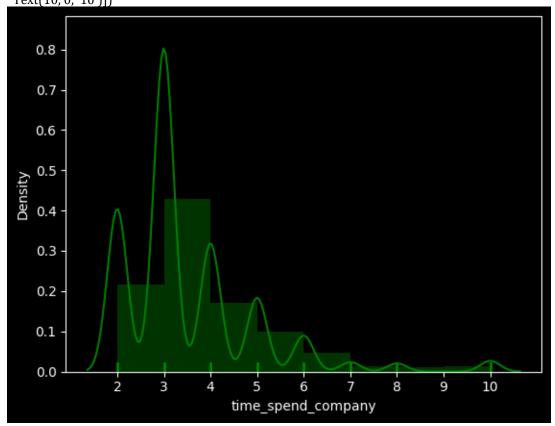
For a guide to updating your code to use the new functions, please see https://gist.github.com/mwaskom/de44147ed2974457ad6372750bbe5751

sns.distplot(df['time_spend_company'], bins = bins, rug = True, color = 'green')

[58]:

([<matplotlib.axis.XTick at 0x7b6a9d23ee00>, <matplotlib.axis.XTick at 0x7b6a9d23f2e0>, <matplotlib.axis.XTick at 0x7b6a9d26ae60>, <matplotlib.axis.XTick at 0x7b6a9d23dcc0>, <matplotlib.axis.XTick at 0x7b6a9d23dcc0>, <matplotlib.axis.XTick at 0x7b6a9d2a5810>, <matplotlib.axis.XTick at 0x7b6a9d2a5ff0>, <matplotlib.axis.XTick at 0x7b6a9d2a4a90>,

```
<matplotlib.axis.XTick at 0x7b6a9d23f2b0>,
<matplotlib.axis.XTick at 0x7b6a9ca1e350>],
[Text(2, 0, '2'),
  Text(3, 0, '3'),
  Text(4, 0, '4'),
  Text(5, 0, '5'),
  Text(6, 0, '6'),
  Text(7, 0, '7'),
  Text(8, 0, '8'),
  Text(9, 0, '9'),
  Text(10, 0, '10')])
```



add Codeadd Markdown

#Scatter plot****

add Codeadd Markdown



titanic_df = sns.load_dataset('titanic')
titanic_df.head()

	survi ved	pcl ass	sex	ag e	sib sp	par ch	fare	embar ked	cla ss	who	adult_ male	de ck	embark_ town	ali ve	alo ne
0	0	3	mal e	22 .0	1	0	7.25 00	S	Thi rd	man	True	Na N	Southam pton	no	Fal se
1	1	1	fem ale	38	1	0	71.2 833	С	Fir st	wo man	False	С	Cherbour g	yes	Fal se
2	1	3	fem ale	26 .0	0	0	7.92 50	S	Thi rd	wo man	False	Na N	Southam pton	yes	Tru e
3	1	1	fem ale	35 .0	1	0	53.1 000	S	Fir st	wo man	False	C	Southam pton	yes	Fal se
4	0	3	mal e	35 .0	0	0	8.05 00	S	Thi rd	man	True	Na N	Southam pton	no	Tru e

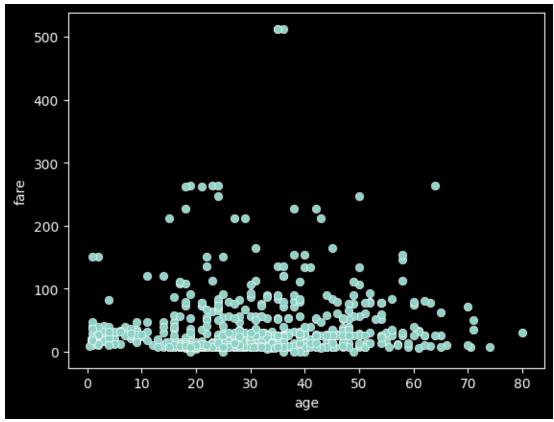
add Codeadd Markdown



sns.scatterplot(x = 'age', y = 'fare', data = titanic_df)

<AxesSubplot: xlabel='age', ylabel='fare'>

[65]:



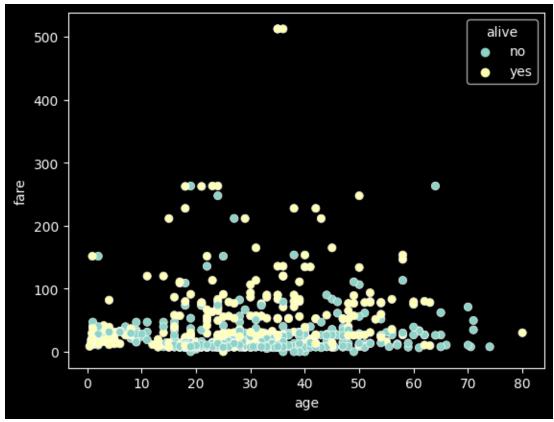
add Codeadd Markdown



sns.scatterplot(x = 'age', y = 'fare', data = titanic_df, hue = 'alive')

<AxesSubplot: xlabel='age', ylabel='fare'>

[63]:



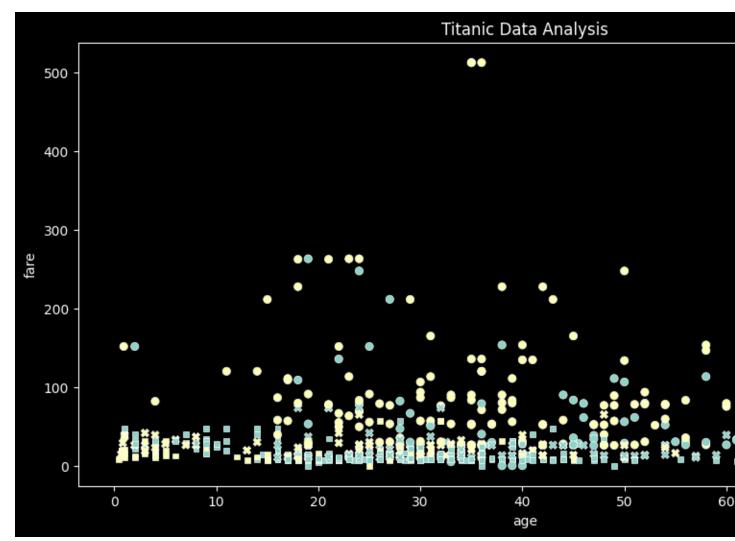
add Codeadd Markdown



plt.figure(figsize = (12,6)) sns.scatterplot(x = 'age', y = 'fare', data =titanic_df, hue = 'alive', style = 'class') plt.title('Titanic Data Analysis')

Text(0.5, 1.0, 'Titanic Data Analysis')

[66]:



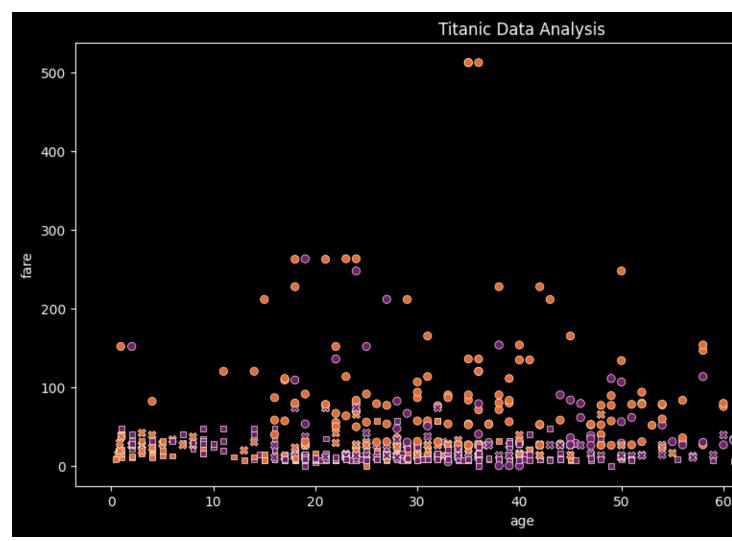
add Codeadd Markdown



plt.figure(figsize = (12,6))
sns.scatterplot(x = 'age', y = 'fare', data =titanic_df, hue = 'alive', style = 'class', palette = 'inferno')
plt.title('Titanic Data Analysis')

Text(0.5, 1.0, 'Titanic Data Analysis')

[70]:



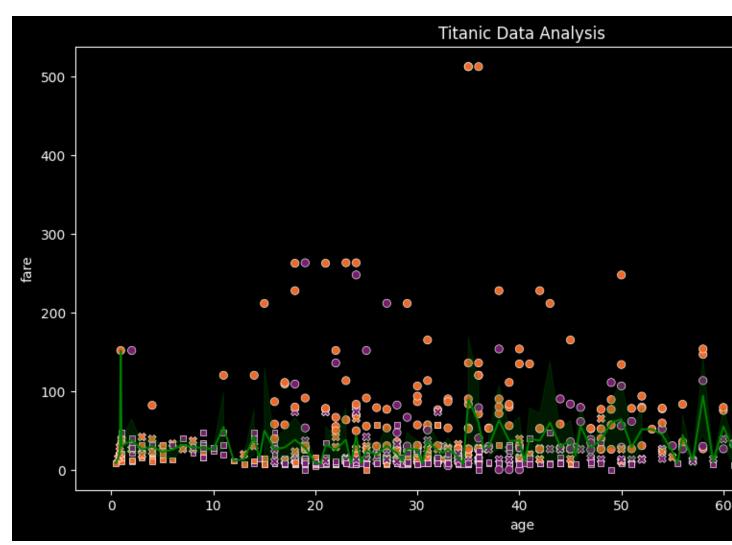
add Codeadd Markdown



[71]:

plt.figure(figsize = (12,6))
sns.scatterplot(x = 'age', y = 'fare', data =titanic_df, hue = 'alive', style = 'class', palette = 'inferno')
sns.lineplot(x = 'age', y = 'fare',data = titanic_df, color = 'green')
plt.title('Titanic Data Analysis')

Text(0.5, 1.0, 'Titanic Data Analysis')



add Codeadd Markdown

#Bar plot****

add Codeadd Markdown



[72]:

	survi ved	pcl ass	sex	ag e	sib sp	par ch	fare	embar ked	cla ss	who	adult_ male	de ck	embark_ town	ali ve	alo ne
0	0	3	mal e	22 .0	1	0	7.25 00	S	Thi rd	man	True	Na N	Southam pton	no	Fal se
1	1	1	fem ale	38	1	0	71.2 833	С	Fir st	wo man	False	С	Cherbour g	yes	Fal se
2	1	3	fem ale	26 .0	0	0	7.92 50	S	Thi rd	wo man	False	Na N	Southam pton	yes	Tru e
3	1	1	fem ale	35 .0	1	0	53.1 000	S	Fir st	wo man	False	С	Southam pton	yes	Fal se
4	0	3	mal e	35 .0	0	0	8.05 00	S	Thi rd	man	True	Na N	Southam pton	no	Tru e

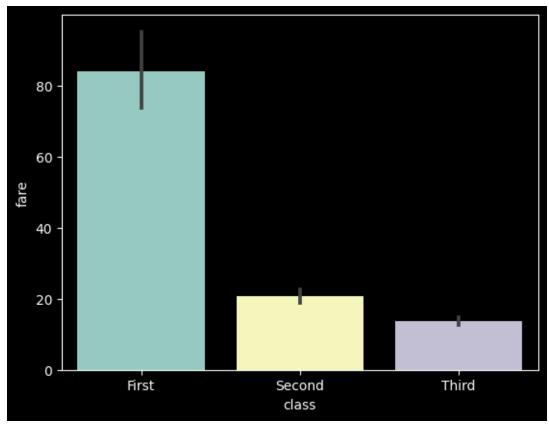
add Codeadd Markdown



 $sns.barplot(x = 'class', y = 'fare', data = titanic_df)$

<AxesSubplot: xlabel='class', ylabel='fare'>

[73]:



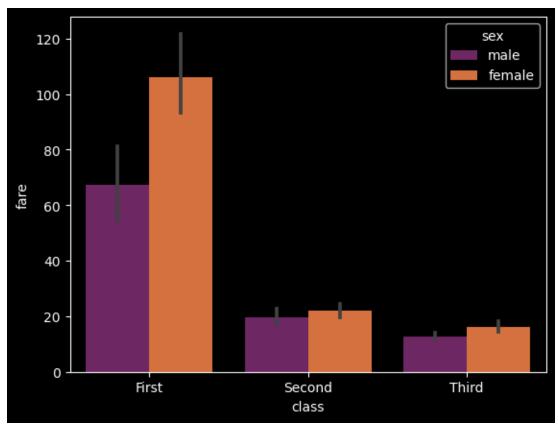
add Codeadd Markdown



sns.barplot(x = 'class', y = 'fare', data =titanic_df, hue = 'sex', palette = 'inferno')

<AxesSubplot: xlabel='class', ylabel='fare'>

[80]:



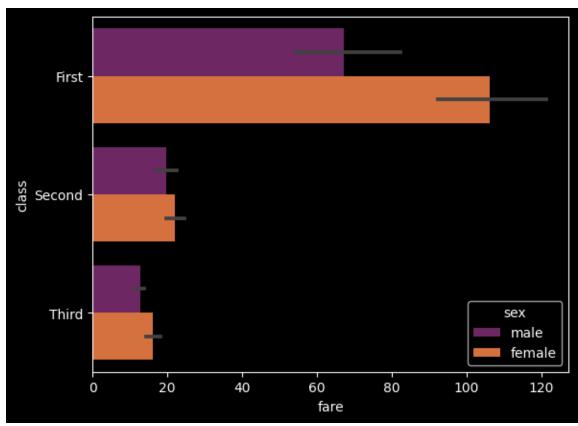
add Codeadd Markdown



sns.barplot(y = 'class', x = 'fare', data =titanic_df, hue = 'sex', palette = 'inferno', orient = 'h')

[82]:

<AxesSubplot: xlabel='fare', ylabel='class'>



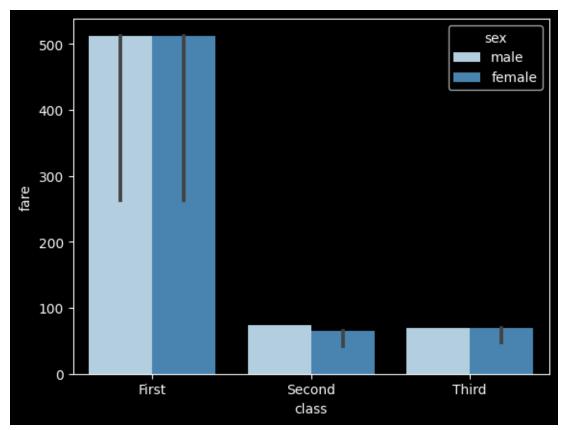
add Codeadd Markdown



sns.barplot(x = 'class', y = 'fare', data =titanic_df, hue = 'sex', palette = 'Blues', estimator = np.max)

[84]:

<AxesSubplot: xlabel='class', ylabel='fare'>



add Codeadd Markdown



sns.barplot(x = 'class', y = 'fare', data =titanic_df, hue = 'sex', palette = 'Blues', ci = 100, errcolor = 'red', errwidth = 10)

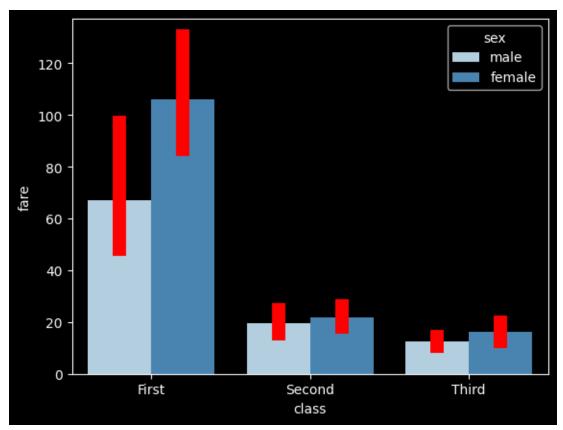
/tmp/ipykernel_34/179625240.py:1: FutureWarning:

The `ci` parameter is deprecated. Use `errorbar=('ci', 100)` for the same effect.

 $sns.barplot(x = 'class', y = 'fare', data = titanic_df, hue = 'sex', palette = 'Blues', ci = 100, errcolor = 'red', errwidth = 10)$

[92]:

<AxesSubplot: xlabel='class', ylabel='fare'>



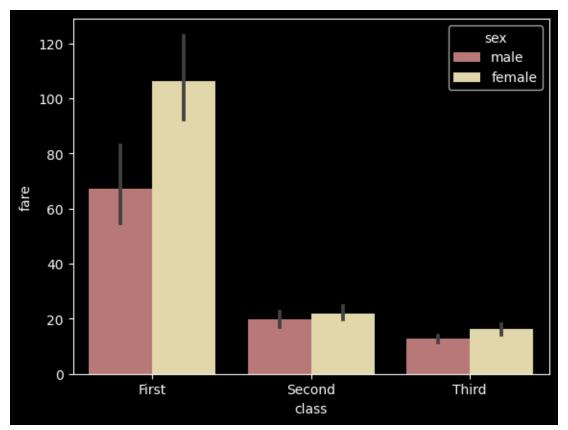
add Codeadd Markdown



[100]:

sns.barplot(x = 'class', y = 'fare', data =titanic_df, hue = 'sex', palette = 'pink', saturation = 1)

<AxesSubplot: xlabel='class', ylabel='fare'>



add Codeadd Markdown

#Heatmaps****

add Codeadd Markdown



flight_df = sns.load_dataset('flights') flight_df.head()

[101]:

	year	month	passengers	
0	1949	Jan	112	
1	1949	Feb	118	
2	1949	Mar	132	

year month passengers

- **3** 1949 Apr 129
- **4** 1949 May 121

add Codeadd Markdown



flight_df = flight_df.pivot("month", "year", "passengers")

flight_df.head()

/tmp/ipykernel_34/1106214860.py:1: FutureWarning: In a future version of pandas all arguments of DataFr ame.pivot will be keyword-only.

flight_df = flight_df.pivot("month", "year", "passengers")

[103]:

year	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
month												
Jan	112	115	145	171	196	204	242	284	315	340	360	417
Feb	118	126	150	180	196	188	233	277	301	318	342	391
Mar	132	141	178	193	236	235	267	317	356	362	406	419
Apr	129	135	163	181	235	227	269	313	348	348	396	461
May	121	125	172	183	229	234	270	318	355	363	420	472

add Codeadd Markdown

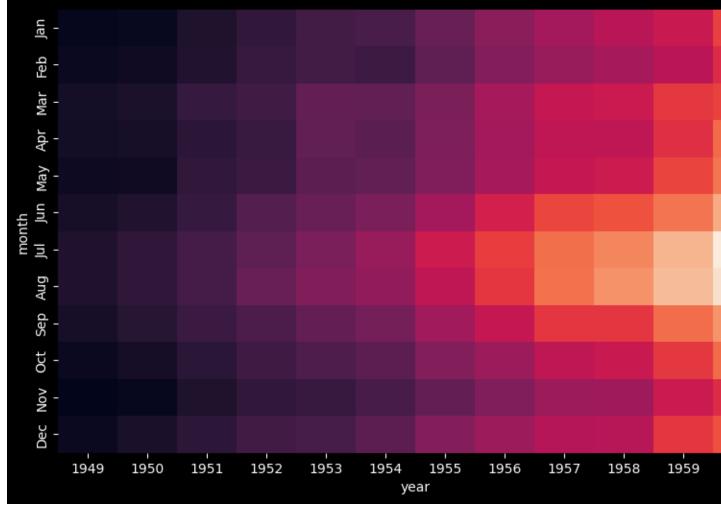


plt.figure(figsize = (12,6)) ax = sns.heatmap(flight_df)

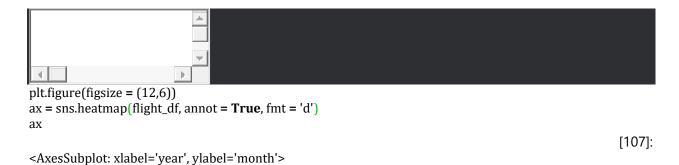
ax

[106]:

<AxesSubplot: xlabel='year', ylabel='month'>



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112	115	145	171	196	204	242	284	315	340	360
118	126	150	180	196	188	233	277	301	318	342
132	141	178	193	236	235	267	317	356	362	406
129	135	163	181	235	227	269	313	348	348	396
121	125	172	183	229	234	270	318	355	363	420
135	149	178	218	243	264	315	374	422	435	472
148	170	199	230	264	302	364	413	465	491	548
148	170	199	242	272	293	347	405	467	505	559
136	158	184	209	237	259	312	355	404	404	463
119	133	162	191	211	229	274	306	347	359	407
104	114	146	172	180	203	237	271	305	310	362
118	140	166	194	201	229	278	306	336	337	405
1949	1950	1951	1952	1953	1954 ye	1955 ar	1956	1957	1958	1959
	118 132 129 121 135 148 148 136 119 104 118	118 126 132 141 129 135 121 125 135 149 148 170 148 170 136 158 119 133 104 114 118 140	118 126 150 132 141 178 129 135 163 121 125 172 135 149 178 148 170 199 148 170 199 136 158 184 119 133 162 104 114 146 118 140 166	118 126 150 180 132 141 178 193 129 135 163 181 121 125 172 183 135 149 178 218 148 170 199 230 148 170 199 242 136 158 184 209 119 133 162 191 104 114 146 172 118 140 166 194	118 126 150 180 196 132 141 178 193 236 129 135 163 181 235 121 125 172 183 229 135 149 178 218 243 148 170 199 230 264 148 170 199 242 272 136 158 184 209 237 119 133 162 191 211 104 114 146 172 180 118 140 166 194 201	118 126 150 180 196 188 132 141 178 193 236 235 129 135 163 181 235 227 121 125 172 183 229 234 135 149 178 218 243 264 148 170 199 230 264 302 148 170 199 242 272 293 136 158 184 209 237 259 119 133 162 191 211 229 104 114 146 172 180 203 118 140 166 194 201 229 1949 1950 1951 1952 1953 1954	118 126 150 180 196 188 233 132 141 178 193 236 235 267 129 135 163 181 235 227 269 121 125 172 183 229 234 270 135 149 178 218 243 264 315 148 170 199 230 264 302 364 148 170 199 242 272 293 347 136 158 184 209 237 259 312 119 133 162 191 211 229 274 104 114 146 172 180 203 237 118 140 166 194 201 229 278	118 126 150 180 196 188 233 277 132 141 178 193 236 235 267 317 129 135 163 181 235 227 269 313 121 125 172 183 229 234 270 318 135 149 178 218 243 264 315 374 148 170 199 230 264 302 364 413 148 170 199 242 272 293 347 405 136 158 184 209 237 259 312 355 119 133 162 191 211 229 274 306 104 114 146 172 180 203 237 271 118 140 166 194 201 229 278 306 1949 1950 1951 1952 1953 1954 1955	118 126 150 180 196 188 233 277 301 132 141 178 193 236 235 267 317 356 129 135 163 181 235 227 269 313 348 121 125 172 183 229 234 270 318 355 135 149 178 218 243 264 315 374 422 148 170 199 230 264 302 364 413 465 148 170 199 242 272 293 347 405 467 136 158 184 209 237 259 312 355 404 119 133 162 191 211 229 274 306 347 104 114 146 172 180 203 237 271 305 118 140 166 194 201 229 2	118 126 150 180 196 188 233 277 301 318 132 141 178 193 236 235 267 317 356 362 129 135 163 181 235 227 269 313 348 348 121 125 172 183 229 234 270 318 355 363 135 149 178 218 243 264 315 374 422 435 148 170 199 230 264 302 364 413 465 491 148 170 199 242 272 293 347 405 467 505 136 158 184 209 237 259 312 355 404 404 119 133 162 191 211 229 274 306 347 359 104 114 146 172 180 203 237 2



plt.figure(figsize = (12,6))
ax = sns.heatmap(flight_df, annot = **True**, fmt = 'd', linecolor = 'k', linewidths = '5')
ax

<AxesSubplot: xlabel='year', ylabel='month'>

[108]:

Jan	112	115	145	171	196	204	242	284	315	340	360	
Feb -	118	126	150	180	196	188	233	277	301	318	342	
Mar	132	141	178	193	236	235	267	317	356	362	406	
Apr	129	135	163	181	235	227	269	313	348	348	396	
Мау	121	125	172	183	229	234	270	318	355	363	420	
nth Jun '	135	149	178	218	243	264	315	374	422	435	472	
month Jul Jur	148	170	199	230	264	302	364	413	465	491	548	
Aug	148	170	199	242	272	293	347	405	467	505	559	
Sep	136	158	184	209	237	259	312	355	404	404	463	
Oct	119	133	162	191	211	229	274	306	347	359	407	
Nov -	104	114	146	172	180	203	237	271	305	310	362	
Dec	118	140	166	194	201	229	278	306	336	337	405	
	1949	1950	1951	1952	1953	1954 ye	1955 ear	1956	1957	1958	1959	



plt.figure(figsize = (14,8))
ax = sns.heatmap(flight_df, annot = **True**, fmt = 'd', linecolor = 'k', linewidths = '5', cmap = 'Reds')
ax

<AxesSubplot: xlabel='year', ylabel='month'>

[109]:

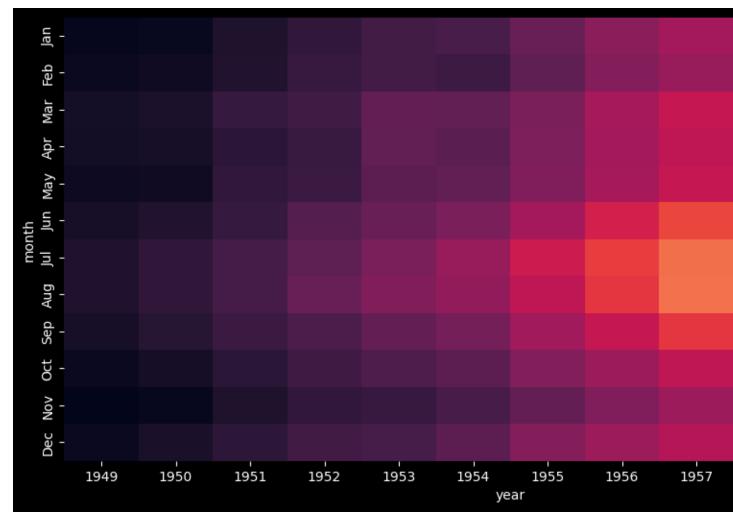
Dec	118 1949	140 1950	166 1951	194 1952	201 1953	229 1954	278 1955	306 1956	336 1957	337 195
Nov -	104	114	146	172	180	203	237	271	305	310
oct -	119	133	162	191	211	229	274	306	347	359
Sep -	136	158	184	209	237	259	312	355	404	404
Aug	148	170	199	242	272	293	347	405	467	505
month Jul Jur	148	170	199	230	264	302	364	413	465	491
ith Jun -	135	149	178	218	243	264	315	374	422	435
Мау	121	125	172	183	229	234	270	318	355	363
Apr	129	135	163	181	235	227	269	313	348	348
Mar	132	141	178	193	236	235	267	317	356	362
Feb	118	126	150	180	196	188	233	277	301	318
Jan	112	115	145	171	196	204	242	284	315	340



plt.figure(figsize = (12,6)) sns.heatmap(flight_df, cbar = **False**)

<AxesSubplot: xlabel='year', ylabel='month'>

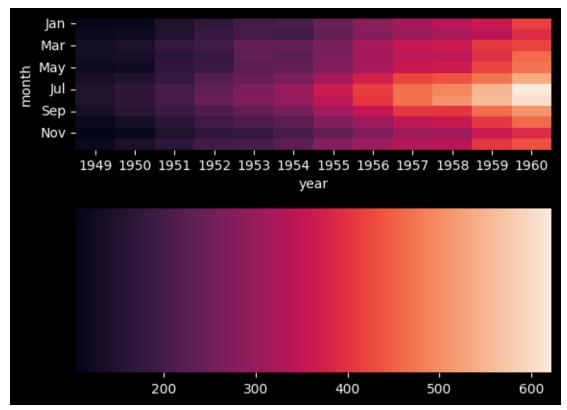
[112]:



add Codeadd Markdown



grid_kws = {"height_ratios": (.4, .5), "hspace": .4}
f, (ax, cbar_ax) = plt.subplots(2, gridspec_kw = grid_kws)
ax = sns.heatmap(flight_df, cbar_kws = {"orientation": "horizontal"}, ax=ax, cbar_ax = cbar_ax,)



add Codeadd Markdown



titanic_df.corr()

/tmp/ipykernel_34/3484993026.py:1: FutureWarning: The default value of numeric_only in DataFrame.corr is deprecated. In a future version, it will default to False. Select only valid columns or specify the value of numeric_only to silence this warning.

titanic_df.corr()

[124]:

	survived	pclass	age	sibsp	parch	fare	adult_male	alone	
survived	1.000000	-0.338481	-0.077221	-0.035322	0.081629	0.257307	-0.557080	-0.203367	
pclass	-0.338481	1.000000	-0.369226	0.083081	0.018443	-0.549500	0.094035	0.135207	
age	-0.077221	-0.369226	1.000000	-0.308247	-0.189119	0.096067	0.280328	0.198270	
sibsp	-0.035322	0.083081	-0.308247	1.000000	0.414838	0.159651	-0.253586	-0.584471	

alone	adult_male	fare	parch	sibsp	age	pclass	survived	
-0.583398	-0.349943	0.216225	1.000000	0.414838	-0.189119	0.018443	0.081629	parch
-0.271832	-0.182024	1.000000	0.216225	0.159651	0.096067	-0.549500	0.257307	fare
0.404744	1.000000	-0.182024	-0.349943	-0.253586	0.280328	0.094035	-0.557080	adult_male
1.000000	0.404744	-0.271832	-0.583398	-0.584471	0.198270	0.135207	-0.203367	alone



titanic_df = sns.load_dataset('titanic')

plt.figure(figsize = (12,8))

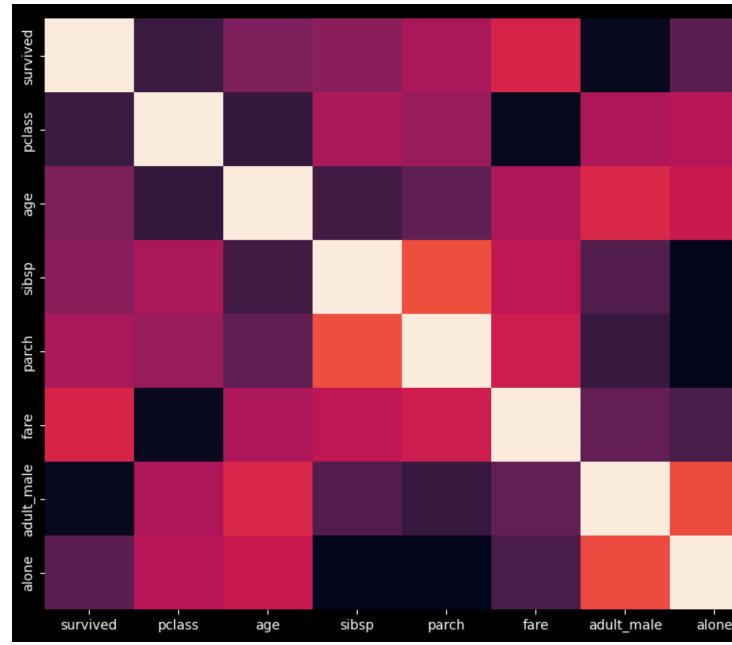
sns.heatmap(titanic_df.corr())

/tmp/ipykernel_34/2825033291.py:3: FutureWarning: The default value of numeric_only in DataFrame.corr is deprecated. In a future version, it will default to False. Select only valid columns or specify the value of numeric_only to silence this warning.

sns.heatmap(titanic_df.corr())

[125]:

<AxesSubplot: >



add Codeadd Markdown

#Pair plot****

add Codeadd Markdown



penguins = sns.load_dataset('penguins')

penguins.head()

[1	271	ŀ

	species	island	bill_length_mm	bill_depth_mm	flipper_length_mm	body_mass_g	sex
0	Adelie	Torgersen	39.1	18.7	181.0	3750.0	Male
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

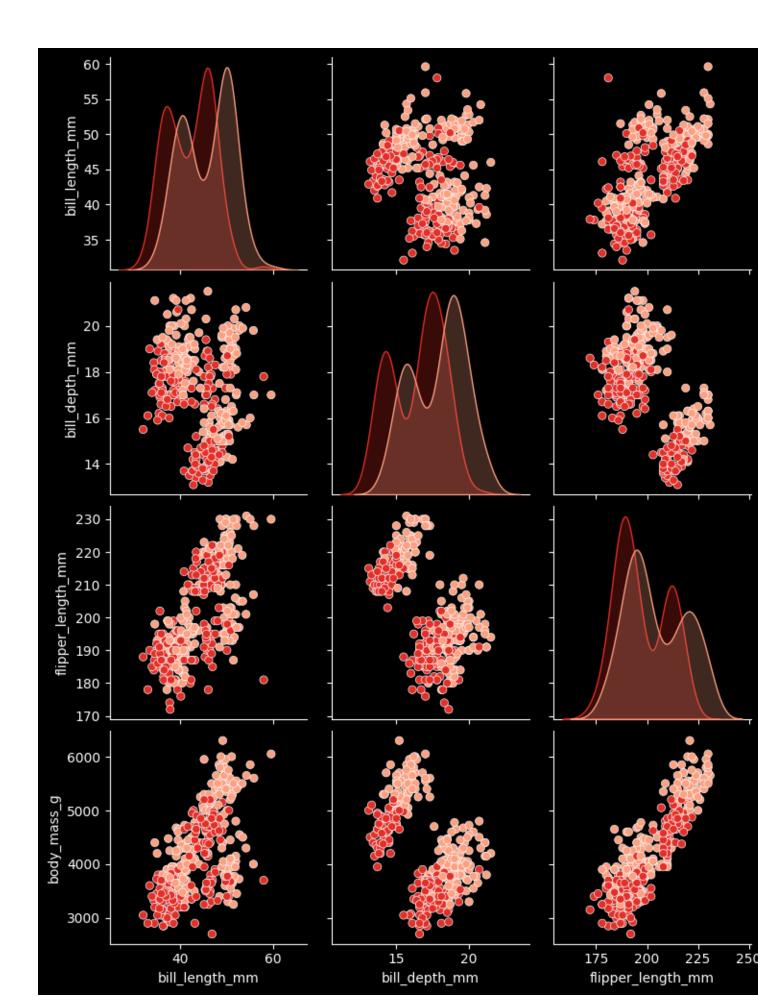
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plt.figure(figsize = (12,12)) sns.pairplot(penguins, hue = 'sex', palette = 'Reds')

[128]:

<seaborn.axisgrid.PairGrid at 0x7b6a99259a20> <Figure size 1200x1200 with 0 Axes>

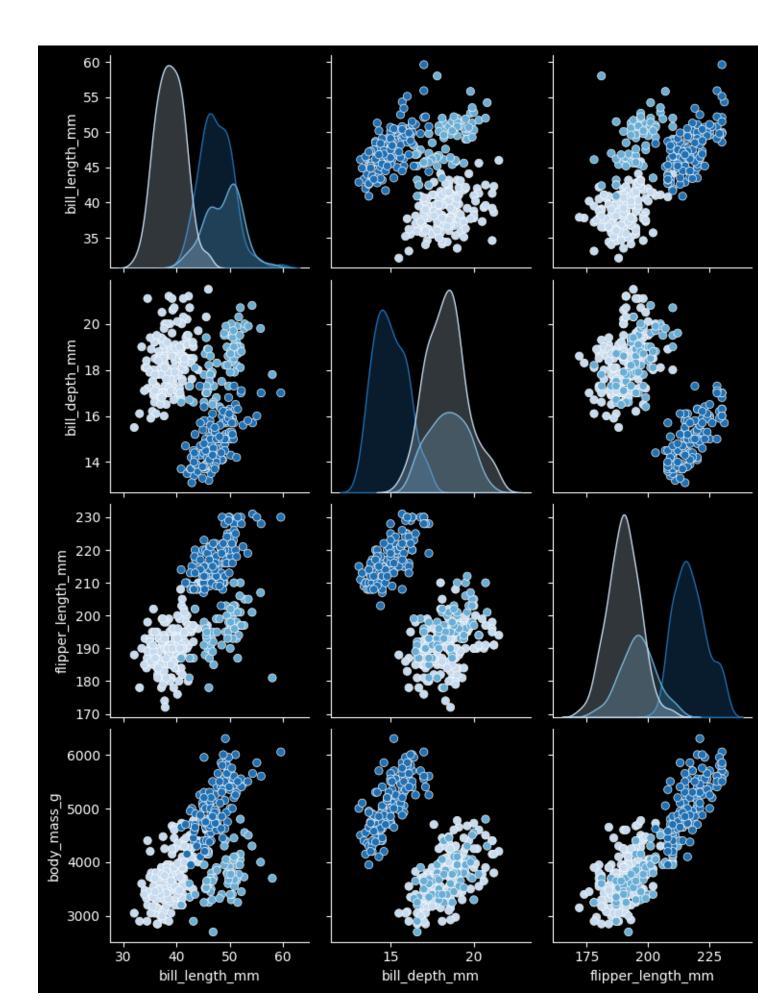




plt.figure(figsize = (12,12))
sns.pairplot(penguins, hue = 'species', palette = 'Blues')

[129]:

<seaborn.axisgrid.PairGrid at 0x7b6a989c53f0> <Figure size 1200x1200 with 0 Axes>



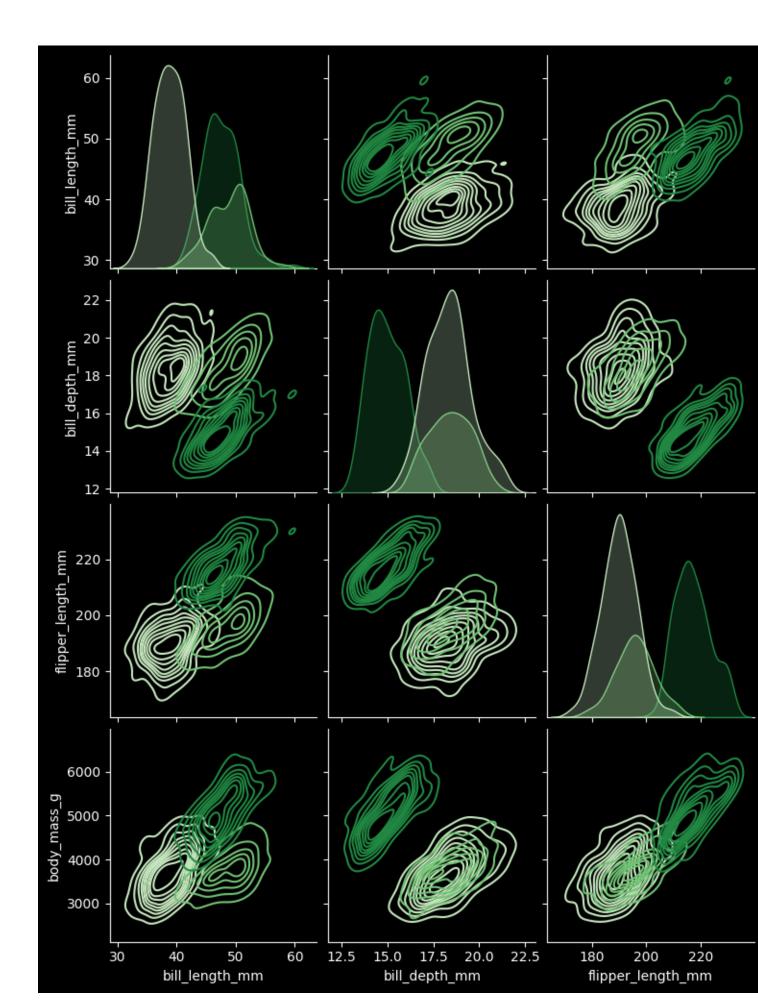


plt.figure(figsize = (12,12))

sns.pairplot(penguins, hue = 'species', kind = 'kde', palette = 'Greens')

[131]:

<seaborn.axisgrid.PairGrid at 0x7b6a97c5a3e0> <Figure size 1200x1200 with 0 Axes>

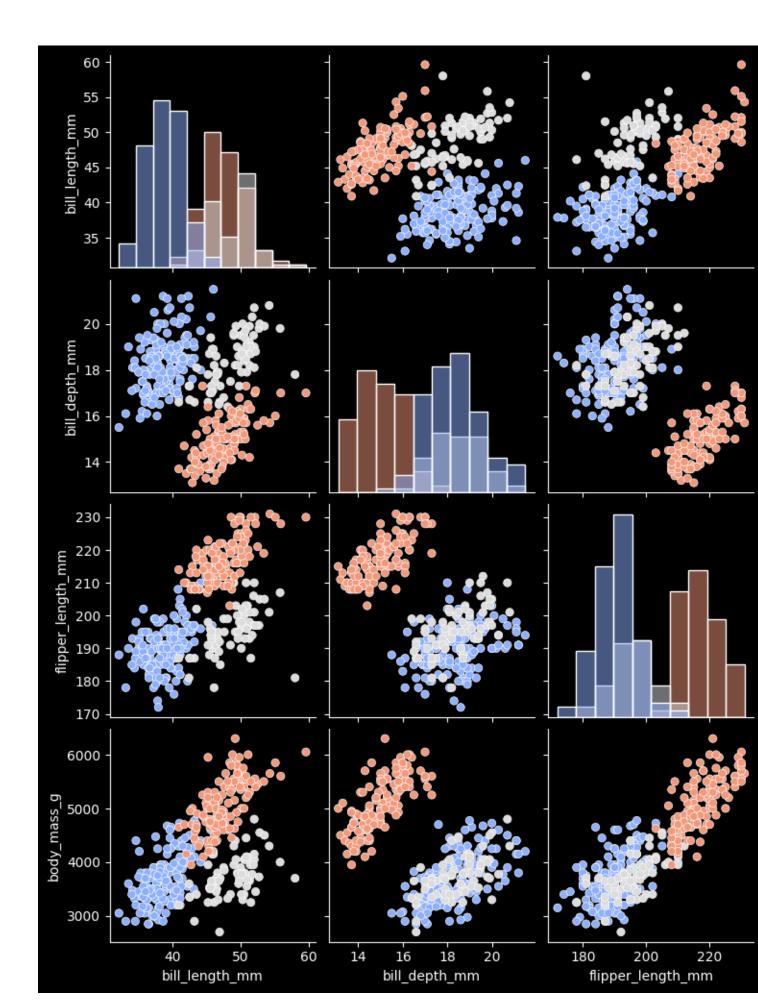




plt.figure(figsize = (12,12))
sns.pairplot(penguins, diag_kind = 'hist', hue = 'species', palette = 'coolwarm')

[135]:

<seaborn.axisgrid.PairGrid at 0x7b6a96a6f9d0> <Figure size 1200x1200 with 0 Axes>

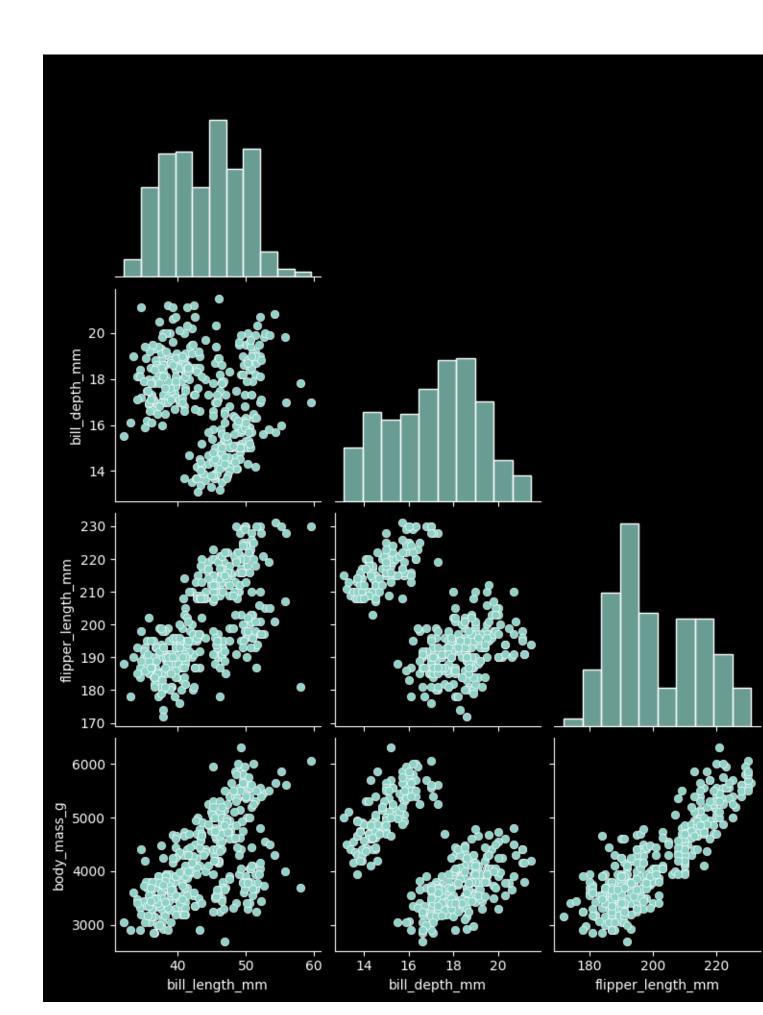


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T	

plt.figure(figsize = (12, 12)) sns. pairplot(penguins, corner = **True**)

[137]:

<seaborn.axisgrid.PairGrid at 0x7b6a9614b640> <Figure size 1200x1200 with 0 Axes>

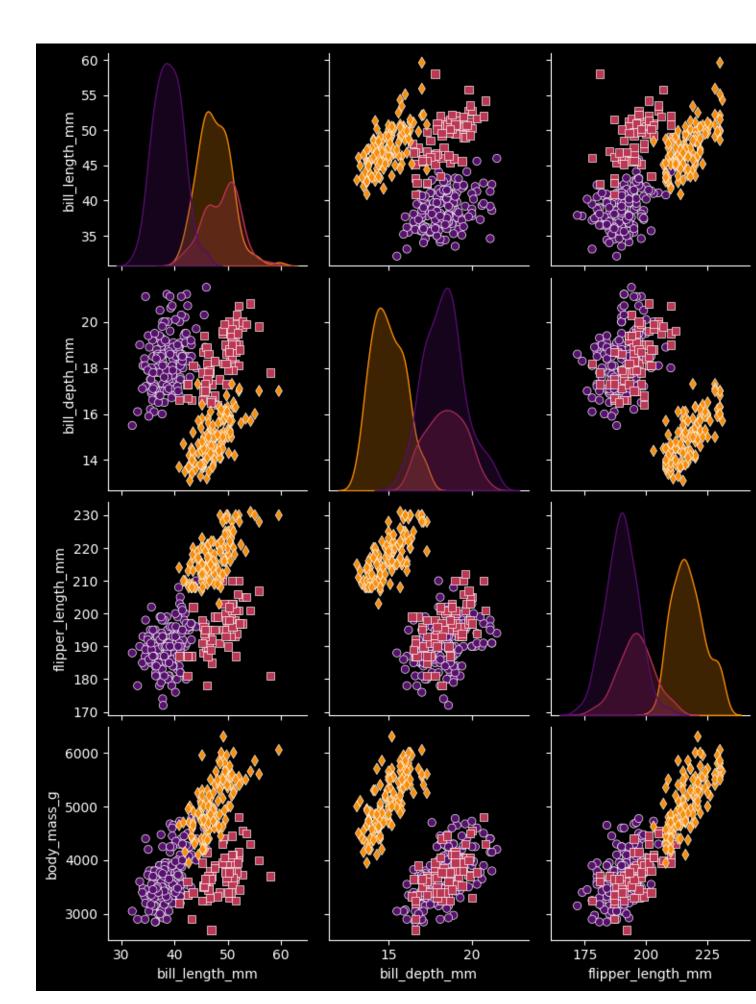


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<u> </u>	

plt.figure(figsize = (12,12)) sns.pairplot(penguins, hue = "species", markers = ["o", "s", "d"], palette = 'inferno')

[141]:

<seaborn.axisgrid.PairGrid at 0x7b6a94293a30> <Figure size 1200x1200 with 0 Axes>





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