1b_Main_seaborn_plot_exercise

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1 seaborn

1.1

(rug) x .

```
In [ ]: import pandas as pd
        import numpy as np
        import matplotlib.pyplot as plt
        import seaborn as sns

        %matplotlib inline

        np.random.seed(0)
        x = np.random.randn(100)
```

```
In [ ]: sns.rugplot(x);
```

```
In [ ]: sns.kdeplot(x);
```

```
In [ ]: sns.distplot(x, kde=True, rug=True);
```

```
In [ ]: import seaborn as sns
        tips = sns.load_dataset("tips")
        tips.head()
```

```
In [ ]: tips = sns.load_dataset("tips")
        sns.jointplot(x="total_bill", y="tip", data=tips);
```

```
In [ ]: iris = sns.load_dataset("iris")
        sns.jointplot("sepal_width", "petal_length", data=iris, kind="kde", \
                      space=0, color="g")
```

1.2

```
In [ ]: sns.regplot(x="total_bill", y="tip", data=tips);
```

`residplot` (residual) .

```
In [ ]: sns.residplot(x="total_bill", y="tip", data=tips);
```

lmplot .

```
In [ ]: sns.lmplot(x="total_bill", y="tip", hue="smoker", data=tips);
```

```
In [ ]: sns.lmplot(x="total_bill", y="tip", col="smoker", data=tips);
```

1.3

barplot .

```
In [ ]: sns.barplot(x="day", y="total_bill",hue='sex' , data=tips);
```

countplot .

```
In [ ]: titanic = sns.load_dataset("titanic")
        sns.countplot(x="class", hue="who", data=titanic);
```

boxplot pointplot .

```
In [ ]: sns.boxplot(x="day", y="total_bill", hue="smoker", data=tips);
```

```
In [ ]: sns.pointplot(x="time", y="total_bill", hue="smoker", data=tips, dodge=True);
```

```
In [ ]: sns.violinplot(x="day", y="total_bill", hue="smoker", data=tips, palette="muted");
```

```
In [ ]: sns.violinplot(x="day", y="total_bill", hue="sex",
                       data=tips, palette="Set2", split=True,
                       scale="count", inner="quartile");
```

```
In [ ]: sns.stripplot(x="day", y="total_bill", hue="smoker",
                      data=tips, jitter=True,
                      palette="Set2", split=True);
```

```
In [ ]: sns.boxplot(x="tip", y="day", data=tips, whis=np.inf)
        sns.stripplot(x="tip", y="day", data=tips, jitter=True, color=".3");
```

```
In [ ]: sns.swarmplot(x="day", y="total_bill", hue="sex", data=tips);
```

```
In [ ]: sns.violinplot(x="day", y="total_bill", data=tips, inner=None)
        sns.swarmplot(x="day", y="total_bill", data=tips, color="white", edgecolor="gray");
```

1.4

heatmap matplotlib imshow .

```
In [ ]: flights = sns.load_dataset("flights")
        flights = flights.pivot("month", "year", "passengers")
        sns.heatmap(flights, annot=True, fmt="d");
```

```
In [ ]:
```