plotting_assign_session4,5,6

January 16, 2022

0.0.1 Line plot between Age Group and Hours/Day coding

```python
# import libraries
import seaborn as sns
import matplotlib.pyplot as plt
import pandas as pd

# import data from file
chilla = pd.read_csv("Chilla_data2_for_plots.csv")
#print(chilla)

#figure size
#plt.figure(figsize=(1,1))

#draw a line plot
sns.lineplot(x="age",y="coding(hrs)",data=chilla)
plt.title("Age Group vs Coding Rate")

#style
#sns.set_style(style=None, rc=None)
#sns.set_style("dark")

#limits x and y
plt.xlim(10)
plt.ylim(0)


plt.show
```
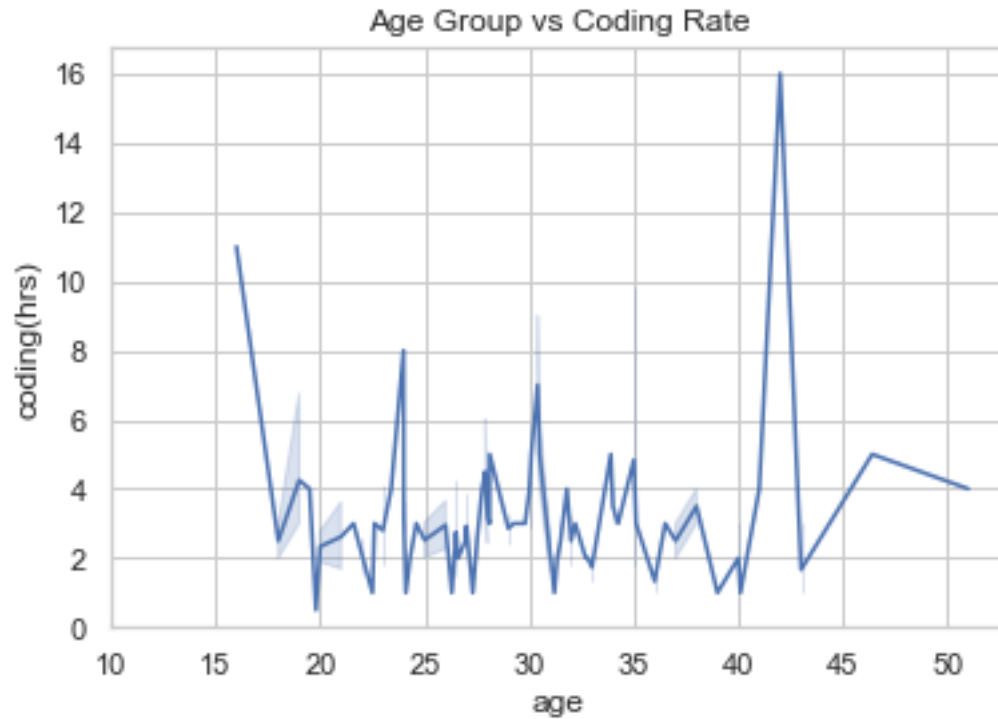
```
[ ]: <function matplotlib.pyplot.show(close=None, block=None)>
```

Age Group vs Coding Rate

0.0.2 Bar plot with the same data

```python
# import libraries
import seaborn as sns
import matplotlib.pyplot as plt
import pandas as pd


# import data from file
chilla = pd.read_csv("Chilla_data2_for_plots.csv")
#print(chilla)

#figure size
plt.figure(figsize=(4,4))

#draw a bar plot
# order of data
# ci graph se dande hatane k lye
# line 256 and 289 wrong data replaced by NAN
sns.
  ↪barplot(x="Gender",y="coding(hrs)",hue="Age",data=chilla,color="blue",ci=None)
plt.title("Coding per day by Male/Female of Different Ages")
```
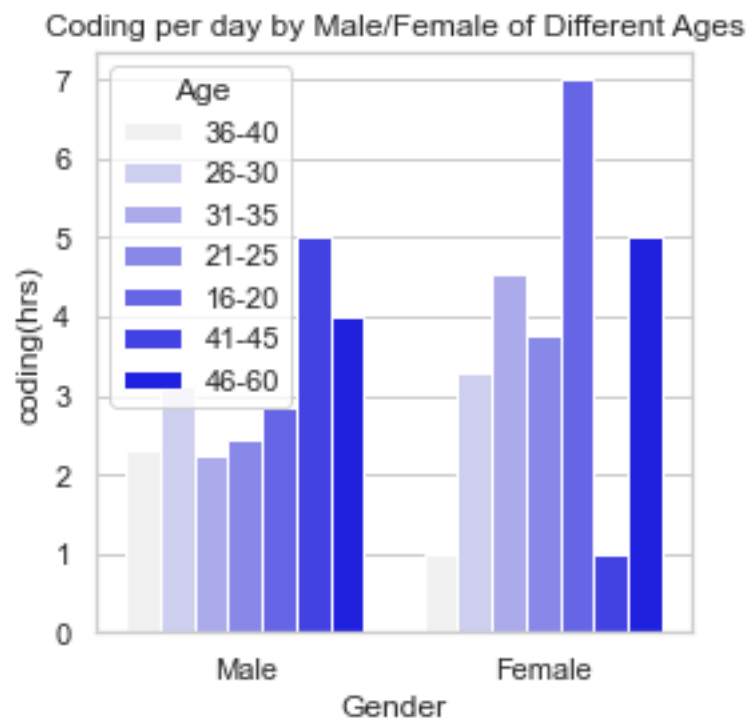
```
#style
sns.set_style(style=None, rc=None)
sns.set_style("white")

#limits x and y
#plt.xlim(0)
#plt.ylim(0)



plt.show
```

[ ]: <function matplotlib.pyplot.show(close=None, block=None)>

Coding per day by Male/Female of Different Ages

0.0.3 Task of assigning different HUE color to each HUE value (Customized)

```
import seaborn as sns
import matplotlib.pyplot as plt
import numpy as np
import pandas as pd
```
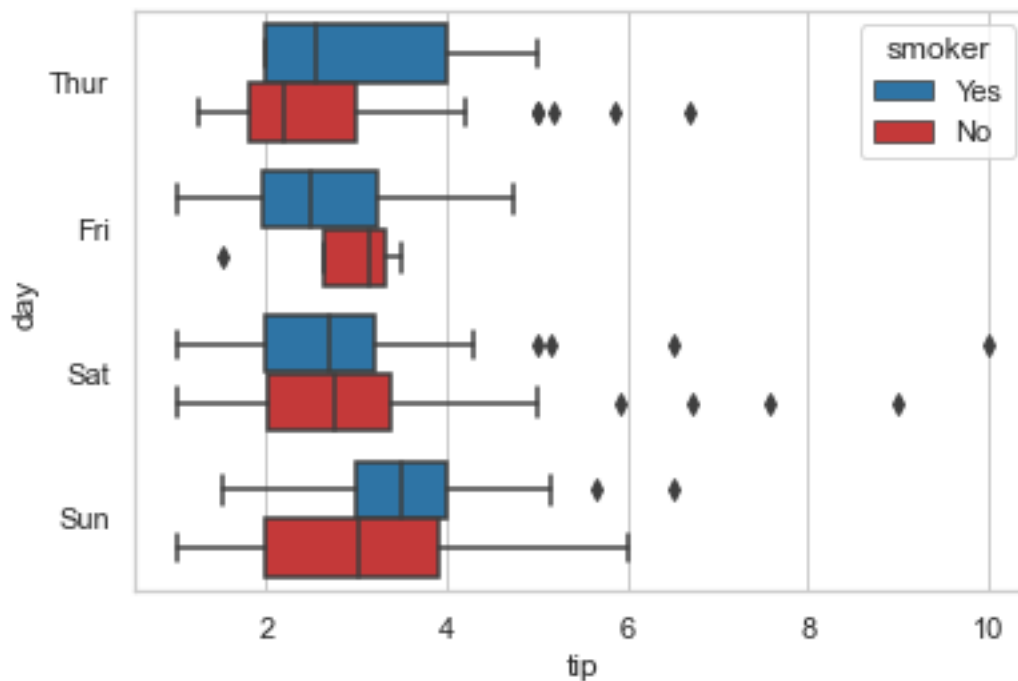
3

```
#Canvas Ballonn board
sns.set(style='whitegrid')

tip = sns.load_dataset("tips")
# it is describing all numeric values
tip.describe()
palette = {
    'Yes': 'tab:blue',
    'No': 'tab:red',

}

sns.boxplot(x="tip",y="day",hue="smoker",data=tip,saturation=0.
 ↪8,dodge=True,palette=palette,color="#1515eb")
```

[ ]: <AxesSubplot:xlabel='tip', ylabel='day'>

0.0.4 Facet Wrap Using Stack Overflow Help On Chilla Data (Needs Refining)

```
import seaborn as sns
import matplotlib.pyplot as plt
import numpy as np
import pandas as pd
```

```
sns.set(style="whitegrid")

# import data from file
chilla = pd.read_csv("Chilla_data2_for_plots.csv")
#print(chilla)
#plt.figure(figsize=(4,12))
fig, axes = plt.subplots(2, 2)
figsize=(4,12)
z= "experience"
ax = sns.boxplot(x="Gender", y=z,data=chilla,
    ax=axes[0,0])
ax = sns.boxplot(x="Location", y="experience",data=chilla,
                ax=axes[0,1])
ax = sns.boxplot(x="age", y="experience",data=chilla,
                ax=axes[1,0])
ax = sns.boxplot(x="What are you?", y='experience',data=chilla,
                ax=axes[1,1])

#this is self created error for future learning
#ax = sns.boxplot(x="", y="petal_width",data=chilla, orient='v',
 #                ax=axes[2,1])
```
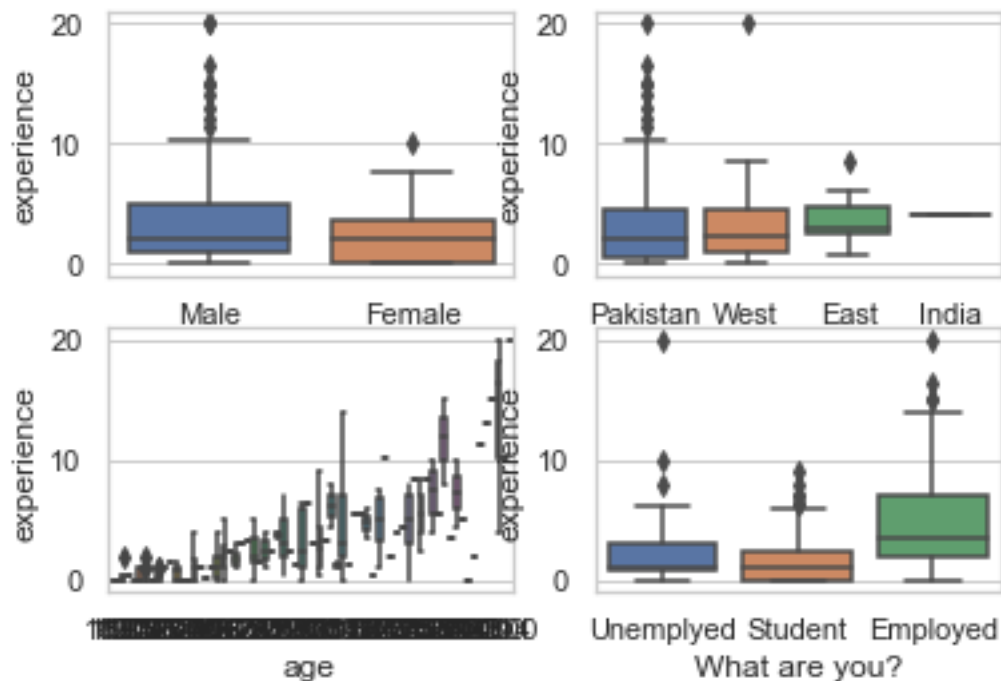
0.0.5 Plotly Express

```
[ ]: import plotly.express as px
     import seaborn as sns
     import matplotlib.pyplot as plt
     import numpy as np
     import pandas as pd
     df = pd.read_csv("Chilla_data2_for_plots.csv")
     fig = px.scatter_matrix(df, dimensions=["weight", "coding(hrs)", "age",␣
       ↪"experience"], color="Location")
     fig.show()
```

0.0.6 Plotly Express (More Practise)

```
[ ]: import plotly.express as px
     df = px.data.iris()
     fig = px.scatter(df, x="sepal_width", y="sepal_length", color="species")
     fig.show()
```

0.0.7 Numpy Task 1

```
[ ]: np.empty(7)
     np.empty(5)
     # basically it creates a vacant error in memory location. I verified with␣
       ↪different sizes.
```

```
[ ]: array([8.40e-323, 8.89e-323, 9.39e-323, 9.88e-323, 1.04e-322])
```

0.0.5 Plotly Express