First Step to read data from the file

import libraries

- import pandas
- import seaborn
- import matplotlib

1- CatPlot

First Read data from File

In [1]:
```
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
day5
```

Out[1]:

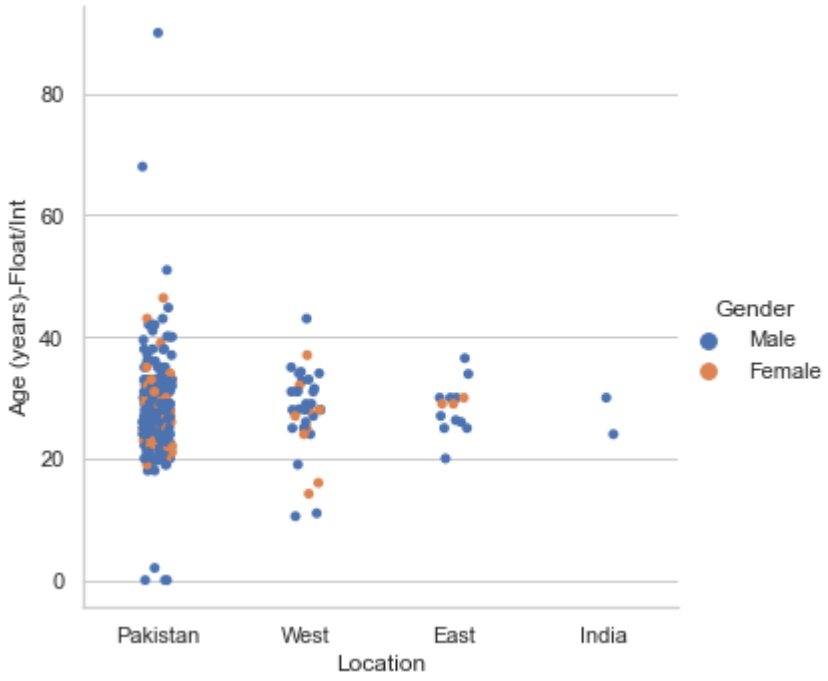
	Gender	Location	Age	Qualification_completed	field_of_study	Purpose_for_chilla	What are you?	Blc grc
0	Male	Pakistan	36-40	Masters	Natural Sciences	to boost my skill set	Unemplyed	
1	Male	Pakistan	26-30	Bachelors	CS/IT	to boost my skill set	Student	
2	Male	Pakistan	31-35	Masters	Enginnering	Switch my field of study	Employed	
3	Female	Pakistan	31-35	Masters	CS/IT	to boost my skill set	Employed	
4	Female	Pakistan	26-30	Masters	Enginnering	to boost my skill set	Student	
...	...	...	...	...	...	...	...	
370	Male	Pakistan	26-30	Masters	Enginnering	to boost my skill set	Employed	
371	Male	Pakistan	31-35	Bachelors	Enginnering	to boost my skill set	Employed	
372	Male	Pakistan	21-25	Bachelors	CS/IT	to boost my skill set	Employed	
373	Male	Pakistan	26-30	Masters	Enginnering	to boost my skill set	Employed	

	Gender	Location	Age	Qualification_completed	field_of_study	Purpose_for_chilla	What are you?	Blc grc
374	Female	Pakistan	31-35	Masters	Mathematics	Switch my field of study	Unemplyed	

375 rows × 23 columns

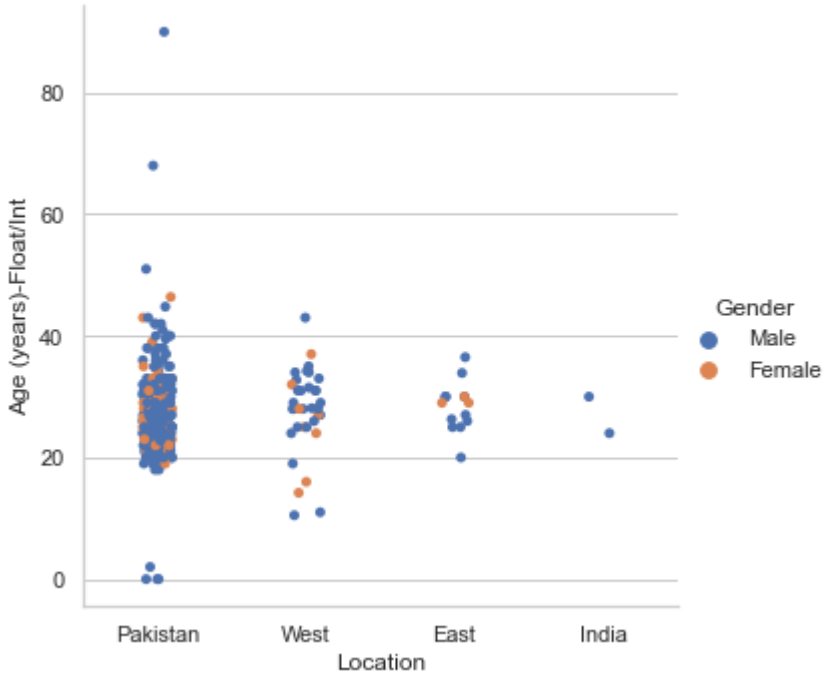
After Read data from file then plot

In [2]:
```
import seaborn as sns
sns.set_theme(style="whitegrid")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Draw a nested barplot by species and sex
g = sns.catplot(
    x="Location", y="Age (years)-Float/Int", hue="Gender", data=day5)
#     ci="sd", palette="dark", alpha=.6, height=6,kind="bar"
# )
# g.despine(left=True)
# g.set_axis_labels("", "Body mass (g)")
# g.legend.set_title("")
```



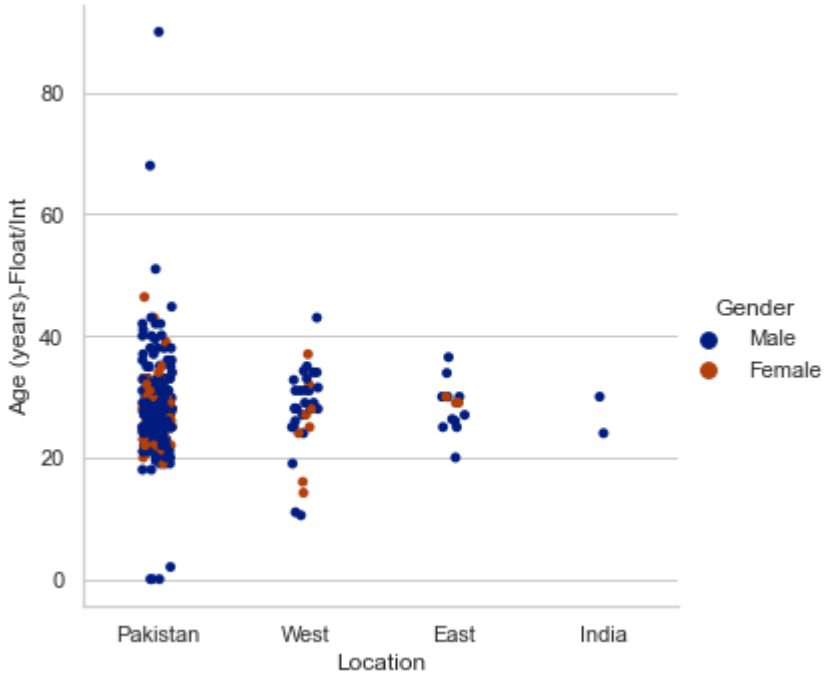
Add Confidence Interval Element

In [3]:
```
import seaborn as sns
sns.set_theme(style="whitegrid")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Draw a nested barplot by species and sex
g = sns.catplot(
    x="Location", y="Age (years)-Float/Int", hue="Gender", ci="sd", data=day5)
#       palette="dark", alpha=.6, height=6,kind="bar"
# )
# g.despine(left=True)
# g.set_axis_labels("", "Body mass (g)")
# g.legend.set_title("")
```



Add Palette Element

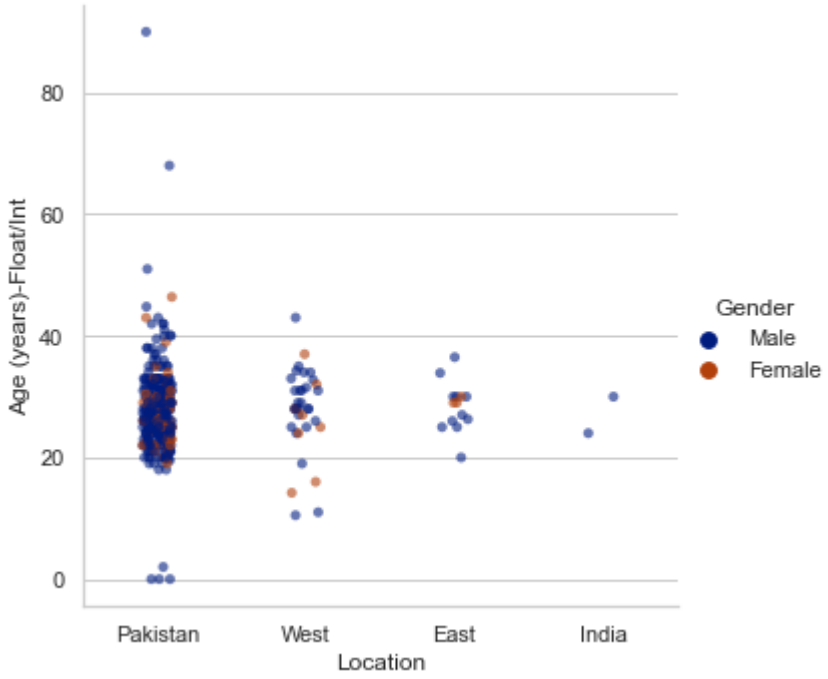
In [5]:
```
import seaborn as sns
sns.set_theme(style="whitegrid")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Draw a nested barplot by species and sex
g = sns.catplot(
    x="Location", y="Age (years)-Float/Int", hue="Gender", ci="sd", palette="dark", dat
#       alpha=.6, height=6,kind="bar"
# )
# g.despine(left=True)
# g.set_axis_labels("", "Body mass (g)")
# g.legend.set_title("")
```



Add Alpha Element

In [6]:

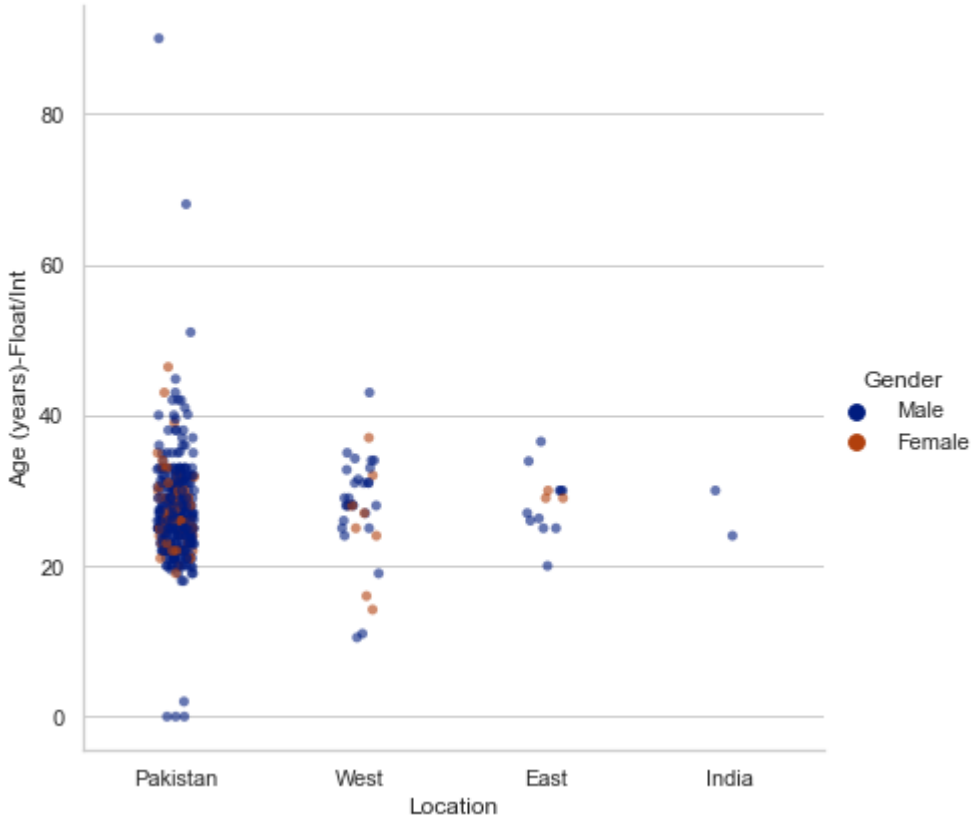
```
import seaborn as sns
sns.set_theme(style="whitegrid")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Draw a nested barplot by species and sex
g = sns.catplot(
    x="Location", y="Age (years)-Float/Int", hue="Gender", ci="sd", palette="dark", alp
#        height=6,kind="bar"
# )
# g.despine(left=True)
# g.set_axis_labels("", "Body mass (g)")
# g.legend.set_title("")
```



Add Height Element

In [7]:

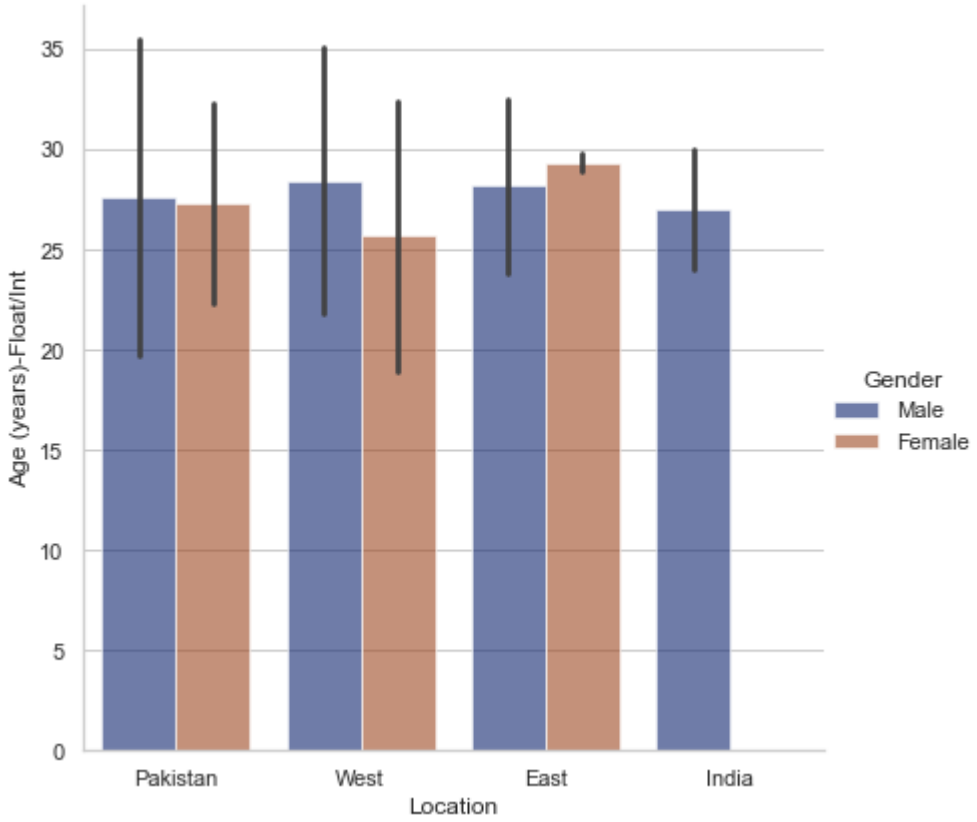
```
import seaborn as sns
sns.set_theme(style="whitegrid")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Draw a nested barplot by species and sex
g = sns.catplot(
    x="Location", y="Age (years)-Float/Int", hue="Gender", ci="sd", palette="dark", alp
    height=6, data=day5)
#        kind="bar"
# )
# g.despine(left=True)
# g.set_axis_labels("", "Body mass (g)")
# g.legend.set_title("")
```



Add Kind Element

In [8]:

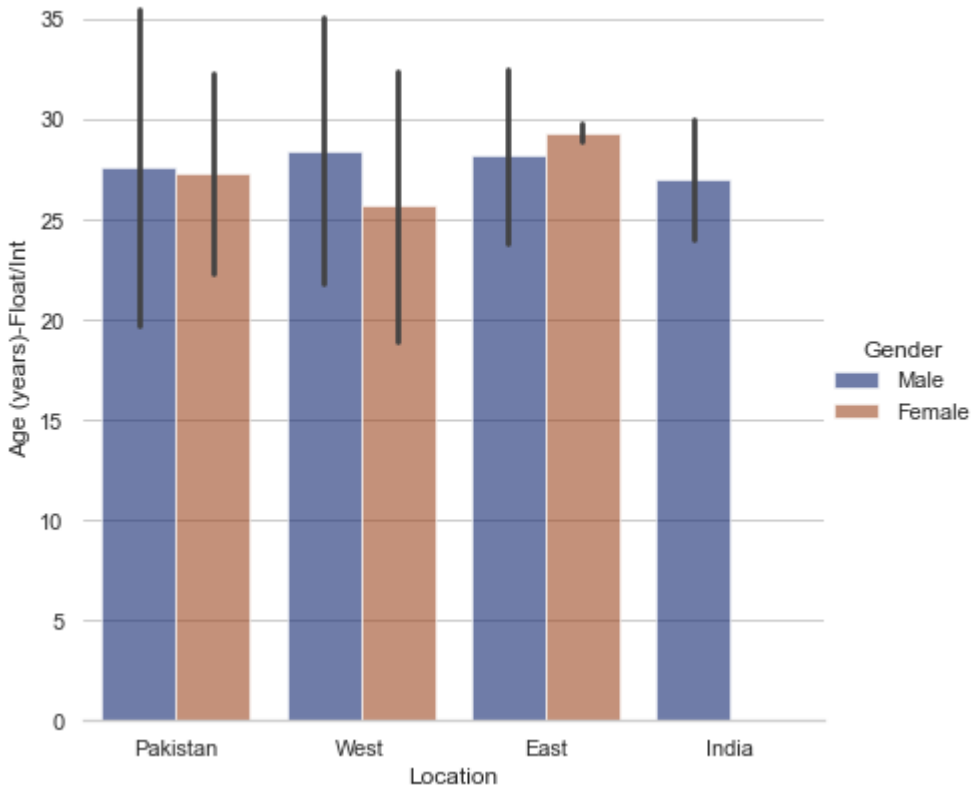
```
import seaborn as sns
sns.set_theme(style="whitegrid")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Draw a nested barplot by species and sex
g = sns.catplot(
    x="Location", y="Age (years)-Float/Int", hue="Gender", ci="sd", palette="dark", alp
    height=6, kind="bar", data=day5)
#
# )
# g.despine(left=True)
# g.set_axis_labels("", "Body mass (g)")
# g.legend.set_title("")
```



Run despine command on my data

In [9]:
```
import seaborn as sns
sns.set_theme(style="whitegrid")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Draw a nested barplot by species and sex
g = sns.catplot(
    x="Location", y="Age (years)-Float/Int", hue="Gender", ci="sd", palette="dark", alp
    height=6, kind="bar", data=day5)
g.despine(left=True)
# g.set_axis_labels("", "Body mass (g)")
# g.legend.set_title("")
```

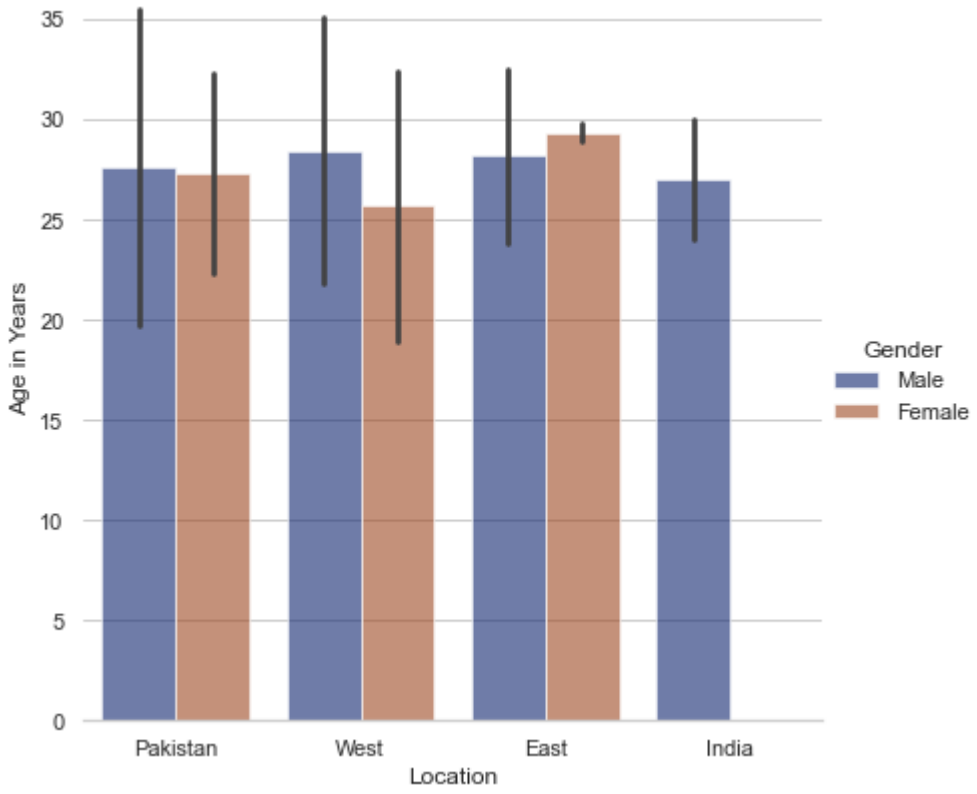
Out[9]:
```
<seaborn.axisgrid.FacetGrid at 0x22ec0551130>
```



Labels Axis

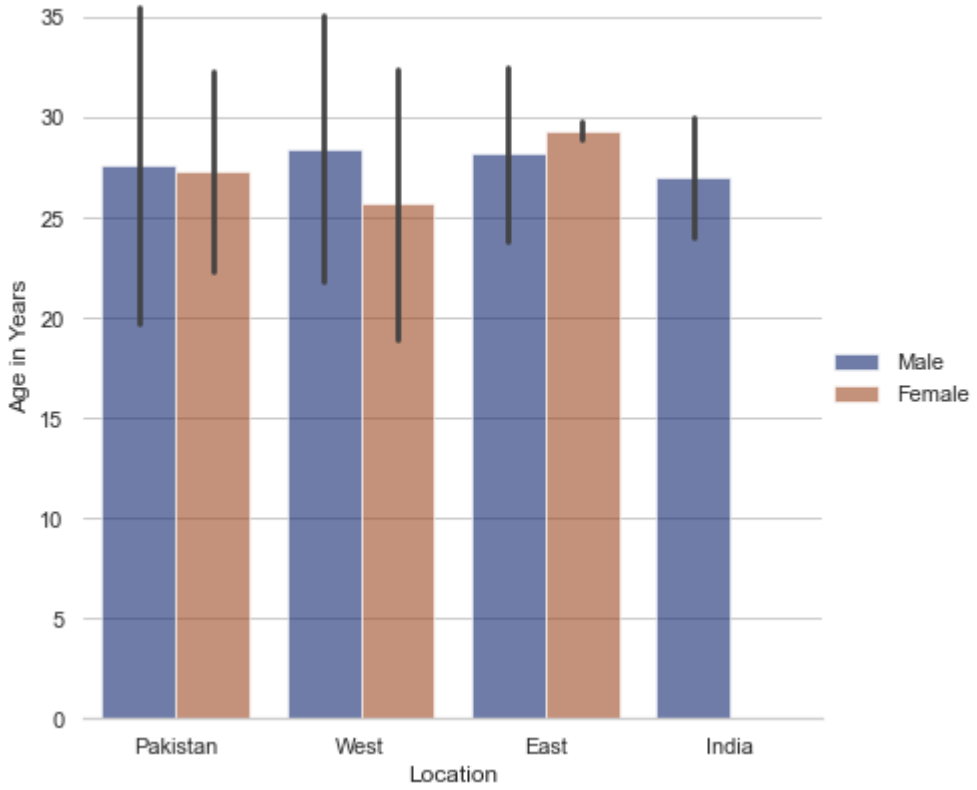
In [12]:
```
import seaborn as sns
sns.set_theme(style="whitegrid")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Draw a nested barplot by species and sex
g = sns.catplot(
    x="Location", y="Age (years)-Float/Int", hue="Gender", ci="sd", palette="dark", alp
    height=6, kind="bar", data=day5)
g.despine(left=True)
g.set_axis_labels("Location", "Age in Years")
# g.legend.set_title("")
```

Out[12]:
```
<seaborn.axisgrid.FacetGrid at 0x22ec06fd4f0>
```



In [14]:

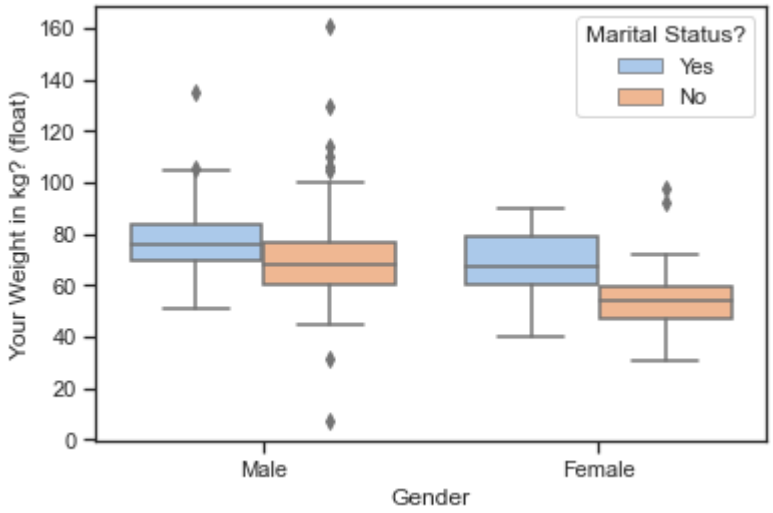
```
import seaborn as sns
sns.set_theme(style="whitegrid")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Draw a nested barplot by species and sex
g = sns.catplot(
    x="Location", y="Age (years)-Float/Int", hue="Gender", ci="sd", palette="dark", alp
    height=6, kind="bar", data=day5)
g.despine(left=True)
g.set_axis_labels("Location", "Age in Years")
g.legend.set_title("")
```



2- BoxPlot

In [15]:
```
import seaborn as sns
sns.set_theme(style="ticks", palette="pastel")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Draw a nested boxplot to show bills by day and time
sns.boxplot(x="Gender", y="Your Weight in kg? (float)",
            hue="Marital Status?", data=day5)
```

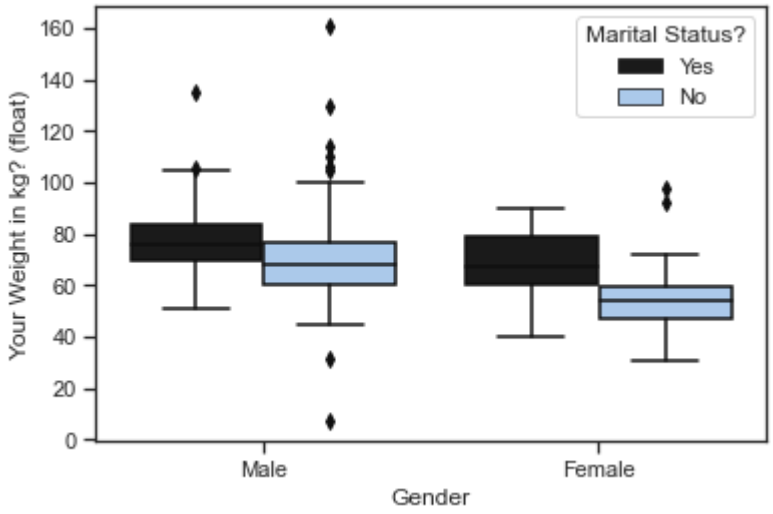
Out[15]:
```
<AxesSubplot:xlabel='Gender', ylabel='Your Weight in kg? (float)'>
```



Add Palette Element in boxPlot

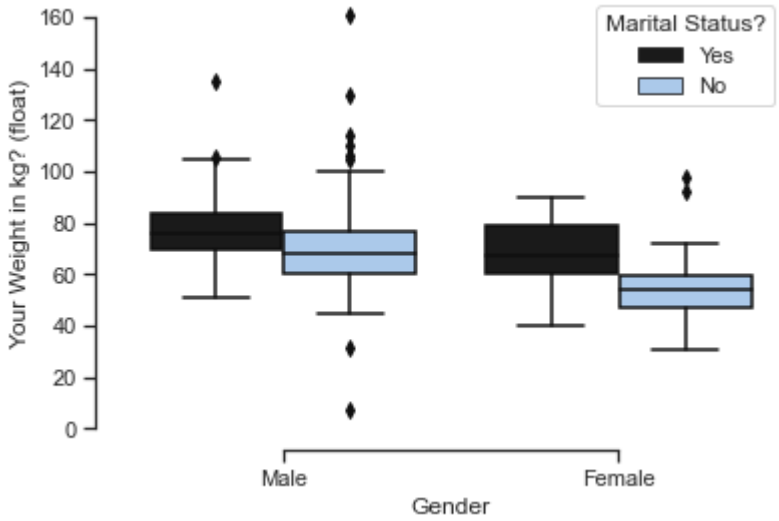
In [44]:
```
import seaborn as sns
sns.set_theme(style="ticks", palette="pastel")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Draw a nested boxplot to show bills by day and time
sns.boxplot(x="Gender", y="Your Weight in kg? (float)",
            hue="Marital Status?", palette=["k", "b"], data=day5)
```

Out[44]:
```
<AxesSubplot:xlabel='Gender', ylabel='Your Weight in kg? (float)'>
```



Apply despine function on data of box plot

In [45]:
```
import seaborn as sns
sns.set_theme(style="ticks", palette="pastel")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Draw a nested boxplot to show bills by day and time
sns.boxplot(x="Gender", y="Your Weight in kg? (float)",
            hue="Marital Status?", palette=["k", "b"], data=day5)
sns.despine(offset=10, trim=True)
```

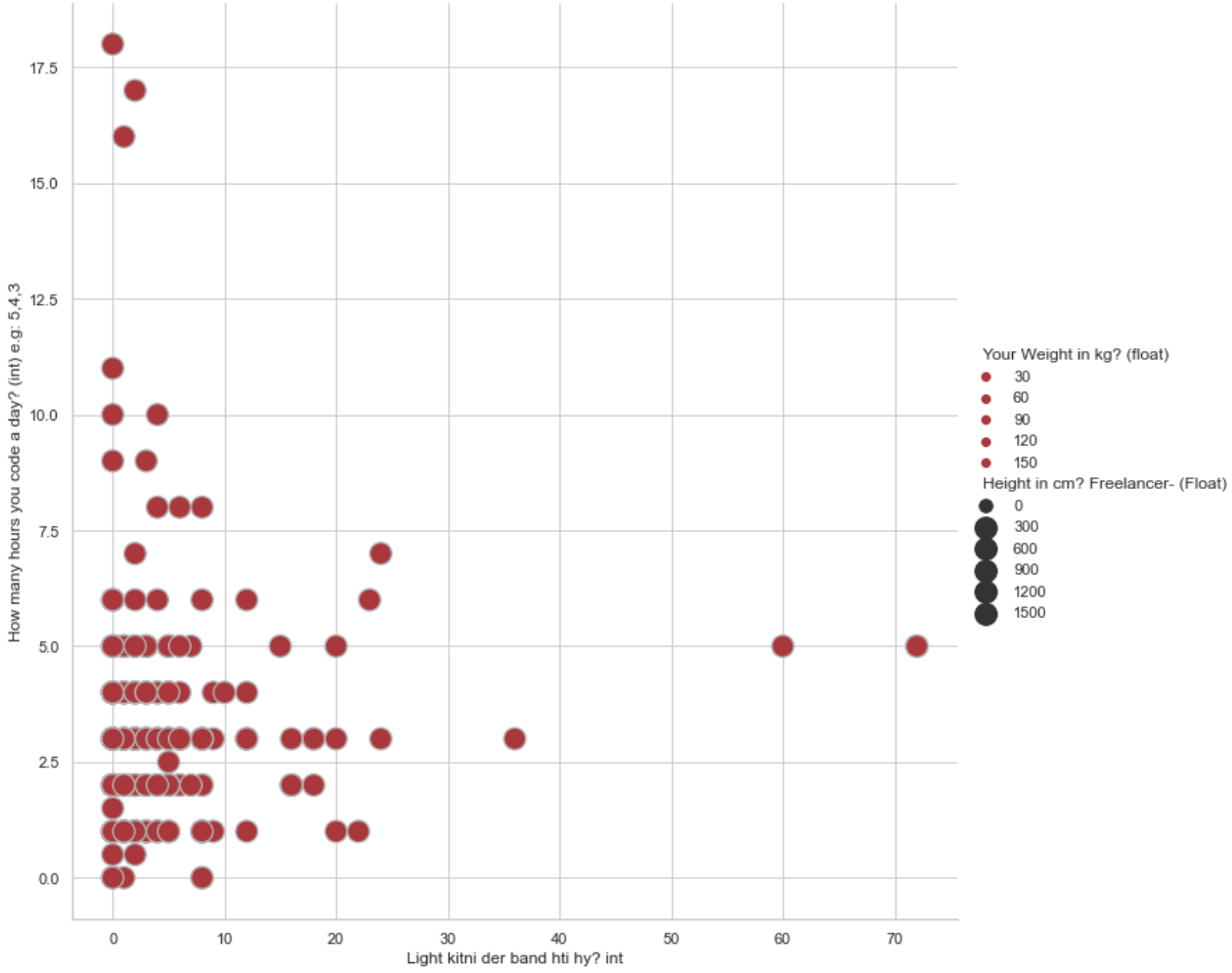


3- Violin Plot

In [51]:
```
import seaborn as sns
sns.set_theme(style="ticks", palette="pastel")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Draw a nested boxplot to show bills by day and time
sns.violinplot(x="Gender", y="Your Weight in kg? (float)",
            hue="Marital Status?", palette={"Yes": "r", "No": ".85"}, split=True, inner
               data=day5)
sns.despine(left=True)
```

4 - Relplot

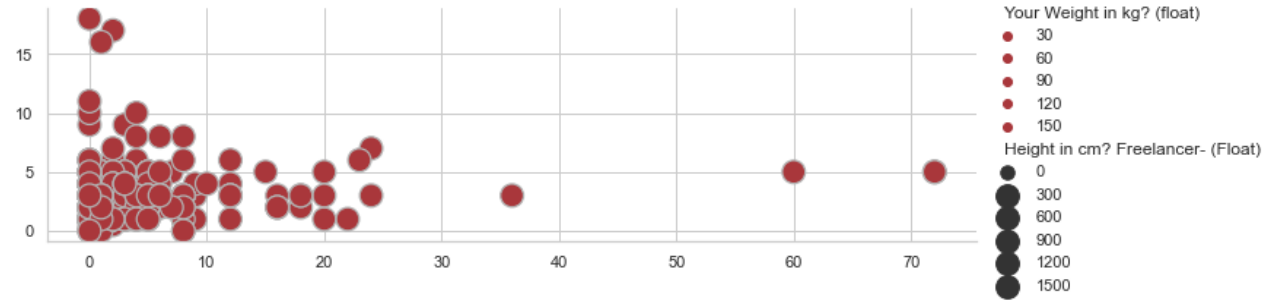
In [74]:
```
import seaborn as sns
sns.set_theme(style="whitegrid")
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Compute a correlation matrix and convert to long-form
corr_mat = day5.corr().stack().reset_index(name="correlation")
# Draw each cell as a scatter point with varying size and color
g = sns.relplot(x="Light kitni der band hti hy? int", y="How many hours you code a day?
    hue="Your Weight in kg? (float)", size="Height in cm? Freelancer- (Float)",
    palette="vlag", hue_norm=(-1, 1), edgecolor=".7",
    height=10, sizes=(50, 250), size_norm=(-.2, .8),data=day5)

# # Tweak the figure to finalize
# g.set(xlabel="", ylabel="", aspect="equal")
```



Add Axis Element in Relplot

In [73]:
```
import seaborn as sns
sns.set_theme(style="whitegrid")
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

corr_mat = day5.corr().stack().reset_index(name="correlation")
# Draw each cell as a scatter point with varying size and color
g = sns.relplot(x="Light kitni der band hti hy? int", y="How many hours you code a day?
    hue="Your Weight in kg? (float)", size="Height in cm? Freelancer- (Float)",
    palette="vlag", hue_norm=(-1, 1), edgecolor=".7",
    height=10, sizes=(50, 250), size_norm=(-.2, .8),data=day5)

# # Tweak the figure to finalize
g.set(xlabel="", ylabel="", aspect="equal")
#g.despine(left=True, bottom=True)
```

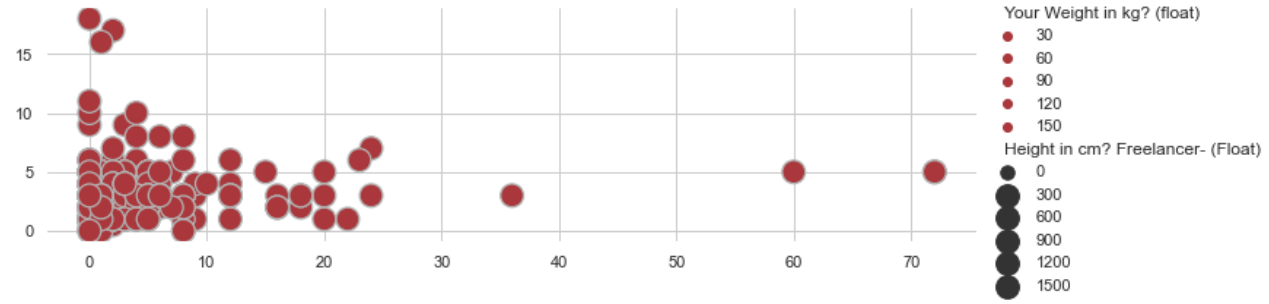
Out[73]:
```
<seaborn.axisgrid.FacetGrid at 0x22ec230e970>
```



Apply Despine Function on Relplot

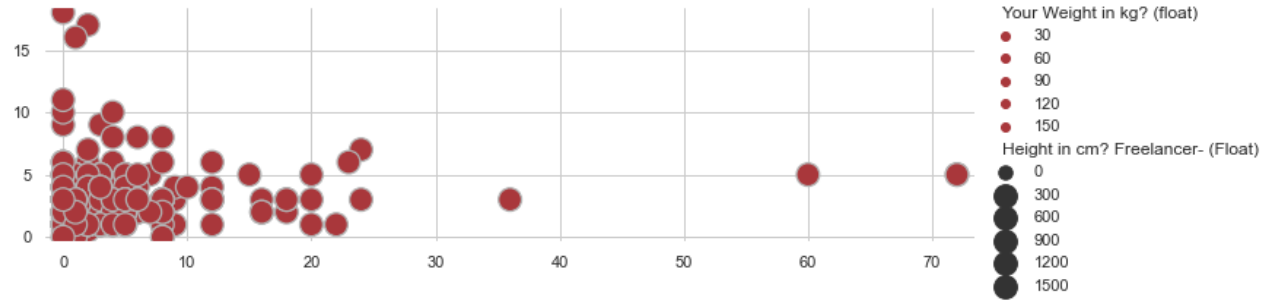
In [72]:
```
import seaborn as sns
sns.set_theme(style="whitegrid")
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

corr_mat = day5.corr().stack().reset_index(name="correlation")
# Draw each cell as a scatter point with varying size and color
g = sns.relplot(x="Light kitni der band hti hy? int", y="How many hours you code a day?
    hue="Your Weight in kg? (float)", size="Height in cm? Freelancer- (Float)",
    palette="vlag", hue_norm=(-1, 1), edgecolor=".7",
    height=10, sizes=(50, 250), size_norm=(-.2, .8),data=day5)

# # Tweak the figure to finalize
g.set(xlabel="", ylabel="", aspect="equal")
g.despine(left=True, bottom=True)
```

Out[72]:
```
<seaborn.axisgrid.FacetGrid at 0x22ec32dfc70>
```



Apply Margins Function

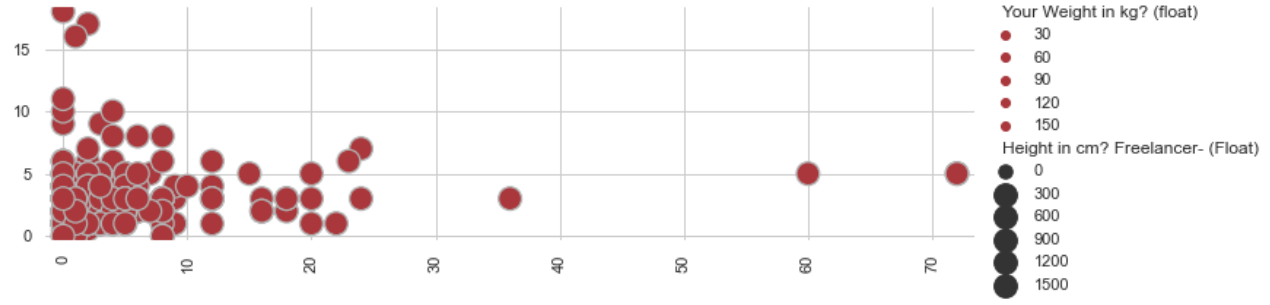
In [75]:
```
import seaborn as sns
sns.set_theme(style="whitegrid")
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

corr_mat = day5.corr().stack().reset_index(name="correlation")
# Draw each cell as a scatter point with varying size and color
g = sns.relplot(x="Light kitni der band hti hy? int", y="How many hours you code a day?
    hue="Your Weight in kg? (float)", size="Height in cm? Freelancer- (Float)",
    palette="vlag", hue_norm=(-1, 1), edgecolor=".7",
    height=10, sizes=(50, 250), size_norm=(-.2, .8),data=day5)

# # Tweak the figure to finalize
g.set(xlabel="", ylabel="", aspect="equal")
g.despine(left=True, bottom=True)
g.ax.margins(.02)
```



Apply Label and Rotation function

In [76]:

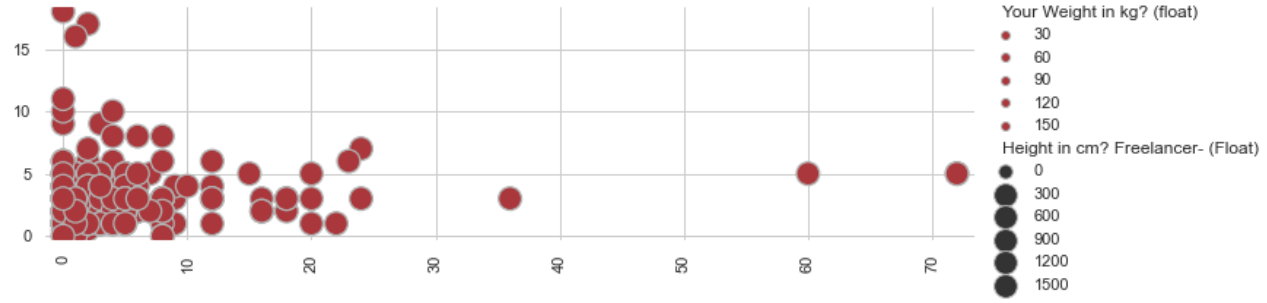
```
import seaborn as sns
sns.set_theme(style="whitegrid")
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

corr_mat = day5.corr().stack().reset_index(name="correlation")
# Draw each cell as a scatter point with varying size and color
g = sns.relplot(x="Light kitni der band hti hy? int", y="How many hours you code a day?
    hue="Your Weight in kg? (float)", size="Height in cm? Freelancer- (Float)",
    palette="vlag", hue_norm=(-1, 1), edgecolor=".7",
    height=10, sizes=(50, 250), size_norm=(-.2, .8),data=day5)

# # Tweak the figure to finalize
g.set(xlabel="", ylabel="", aspect="equal")
g.despine(left=True, bottom=True)
g.ax.margins(.02)
for label in g.ax.get_xticklabels():
    label.set_rotation(90)
```



In [77]:

```
import seaborn as sns
sns.set_theme(style="whitegrid")
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

corr_mat = day5.corr().stack().reset_index(name="correlation")
# Draw each cell as a scatter point with varying size and color
g = sns.relplot(x="Light kitni der band hti hy? int", y="How many hours you code a day?
    hue="Your Weight in kg? (float)", size="Height in cm? Freelancer- (Float)",
    palette="vlag", hue_norm=(-1, 1), edgecolor=".7",
    height=10, sizes=(50, 250), size_norm=(-.2, .8),data=day5)

# # Tweak the figure to finalize
g.set(xlabel="", ylabel="", aspect="equal")
g.despine(left=True, bottom=True)
g.ax.margins(.02)
```

```
for label in g.ax.get_xticklabels():
    label.set_rotation(90)
for artist in g.legend.legendHandles:
    artist.set_edgecolor(".7")
```

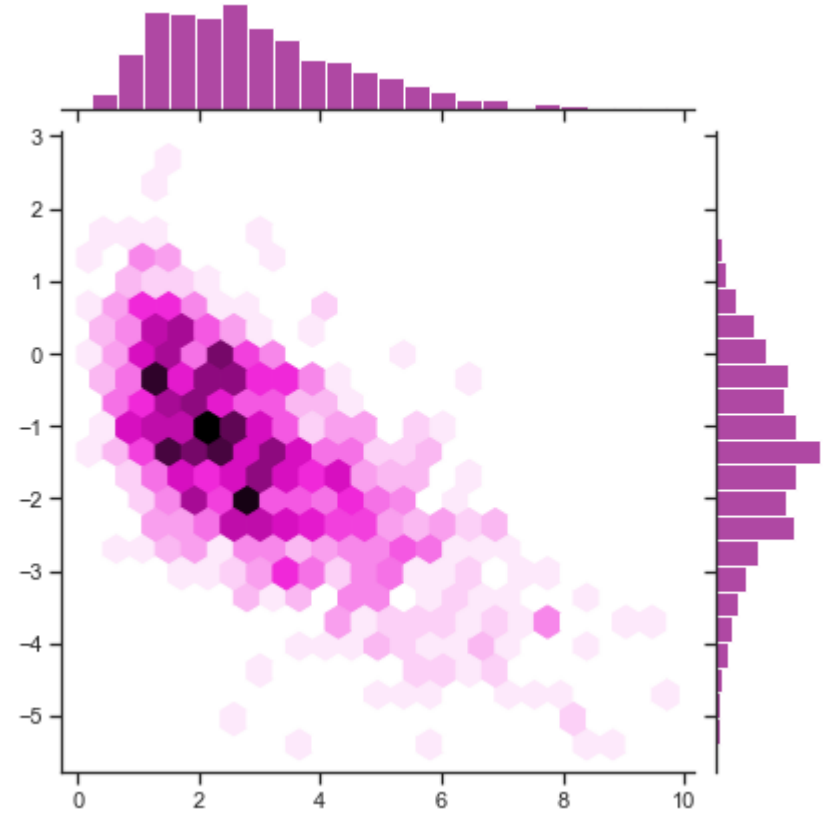


5- Joint Plot

In [79]:

```
import numpy as np
import seaborn as sns
sns.set_theme(style="ticks")

rs = np.random.RandomState(6)
x = rs.gamma(3, size=1000)
y = -.5 * x + rs.normal(size=1000)

sns.jointplot(x=x, y=y, kind="hex", color="#940a84")
```

Out[79]: <seaborn.axisgrid.JointGrid at 0x22ec22c1e80>



6- Histoplot

- First import different libraries
- then read data from the file
- show read data

In [80]:
```
import seaborn as sns
import matplotlib as mpl
import matplotlib.pyplot as plt

sns.set_theme(style="ticks")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
day5
```

Out[80]:

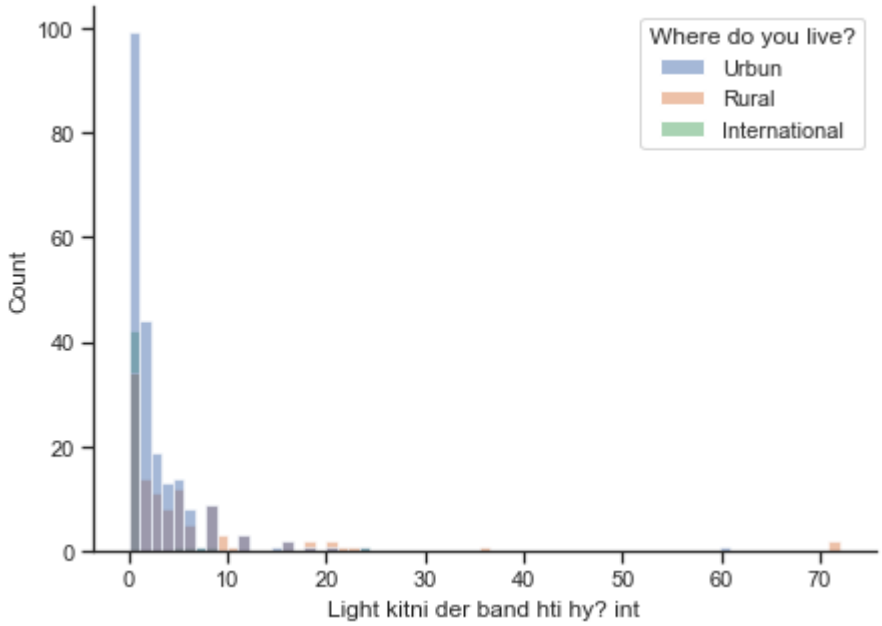
	Gender	Location	Age	Qualification_completed	field_of_study	Purpose_for_chilla	What are you?	Blo grc
0	Male	Pakistan	36-40	Masters	Natural Sciences	to boost my skill set	Unemplyed	
1	Male	Pakistan	26-30	Bachelors	CS/IT	to boost my skill set	Student	
2	Male	Pakistan	31-35	Masters	Enginnering	Switch my field of study	Employed	
3	Female	Pakistan	31-35	Masters	CS/IT	to boost my skill set	Employed	
4	Female	Pakistan	26-30	Masters	Enginnering	to boost my skill set	Student	
...	...	...	...	...	...	...	...	
370	Male	Pakistan	26-30	Masters	Enginnering	to boost my skill set	Employed	
371	Male	Pakistan	31-35	Bachelors	Enginnering	to boost my skill set	Employed	
372	Male	Pakistan	21-25	Bachelors	CS/IT	to boost my skill set	Employed	
373	Male	Pakistan	26-30	Masters	Enginnering	to boost my skill set	Employed	
374	Female	Pakistan	31-35	Masters	Mathematics	Switch my field of study	Unemplyed	

375 rows × 23 columns

Show Read data in the form of histoplot

In [82]:
```
import seaborn as sns
import matplotlib as mpl
import matplotlib.pyplot as plt

sns.set_theme(style="ticks")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
f, ax = plt.subplots(figsize=(7, 5))
sns.despine(f)

sns.histplot(x="Light kitni der band hti hy? int", hue="Where do you live?", data=day5)
#     multiple="stack",
#     palette="light:m_r",
#     edgecolor=".3",
#     linewidth=.5,
#     log_scale=True,
# )
```

Out[82]: <AxesSubplot:xlabel='Light kitni der band hti hy? int', ylabel='Count'>

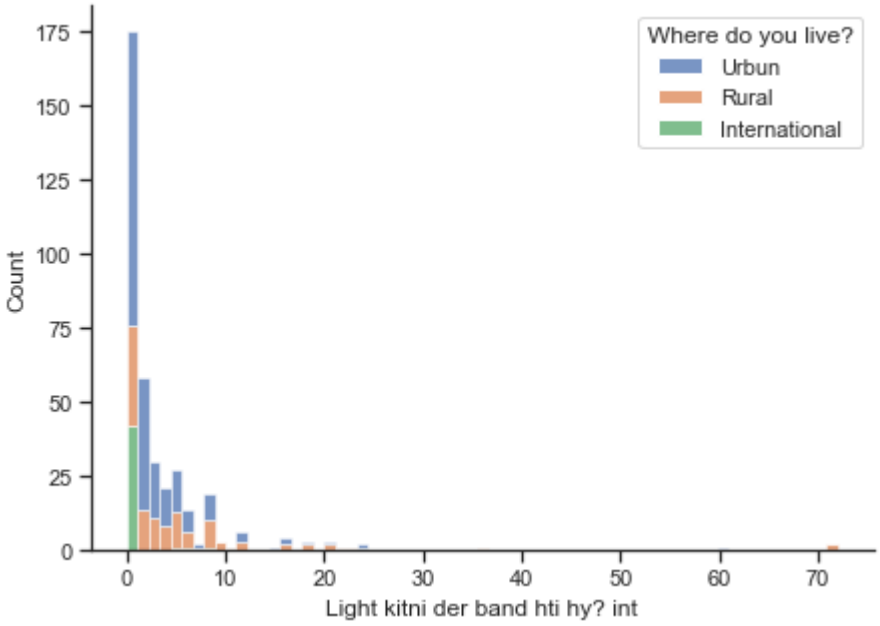


Add Multiple element

In [83]:
```
import seaborn as sns
import matplotlib as mpl
import matplotlib.pyplot as plt

sns.set_theme(style="ticks")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
f, ax = plt.subplots(figsize=(7, 5))
sns.despine(f)

sns.histplot(x="Light kitni der band hti hy? int", hue="Where do you live?",  multiple=
#
#     palette="light:m_r",
```

```
#     edgecolor=".3",
#     linewidth=.5,
#     log_scale=True,
# )
```

Out[83]: <AxesSubplot:xlabel='Light kitni der band hti hy? int', ylabel='Count'>

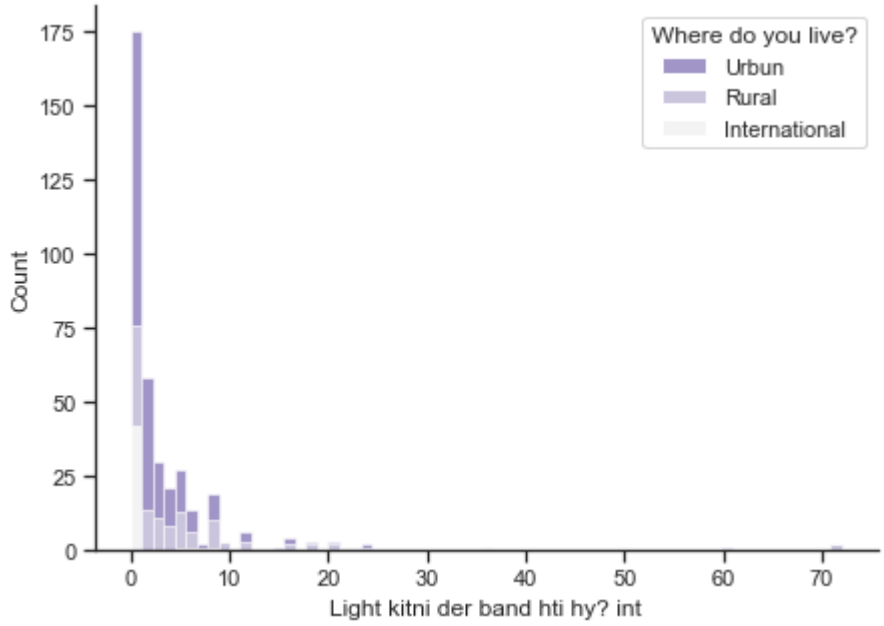


Add Palette Element

In [84]:

```
import seaborn as sns
import matplotlib as mpl
import matplotlib.pyplot as plt

sns.set_theme(style="ticks")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
f, ax = plt.subplots(figsize=(7, 5))
sns.despine(f)

sns.histplot(x="Light kitni der band hti hy? int", hue="Where do you live?",  multiple=
             palette="light:m_r", data=day5)
#
#
#     edgecolor=".3",
#     linewidth=.5,
#     log_scale=True,
# )
```

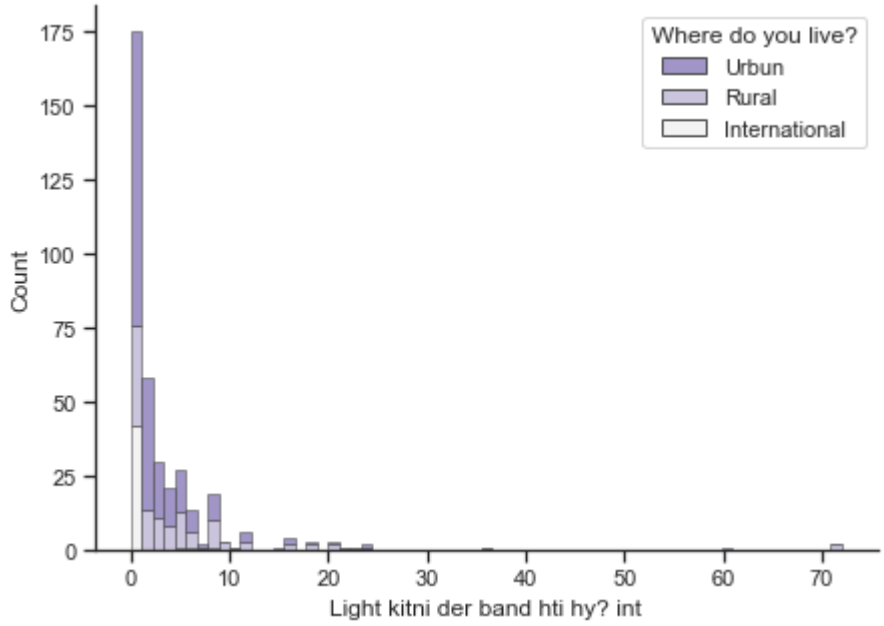
Out[84]: <AxesSubplot:xlabel='Light kitni der band hti hy? int', ylabel='Count'>



Add Edge Color Element

In [85]:
```
import seaborn as sns
import matplotlib as mpl
import matplotlib.pyplot as plt

sns.set_theme(style="ticks")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
f, ax = plt.subplots(figsize=(7, 5))
sns.despine(f)

sns.histplot(x="Light kitni der band hti hy? int", hue="Where do you live?",  multiple=
             palette="light:m_r", edgecolor=".3", data=day5)
#
#
#
#     linewidth=.5,
#     log_scale=True,
# )
```

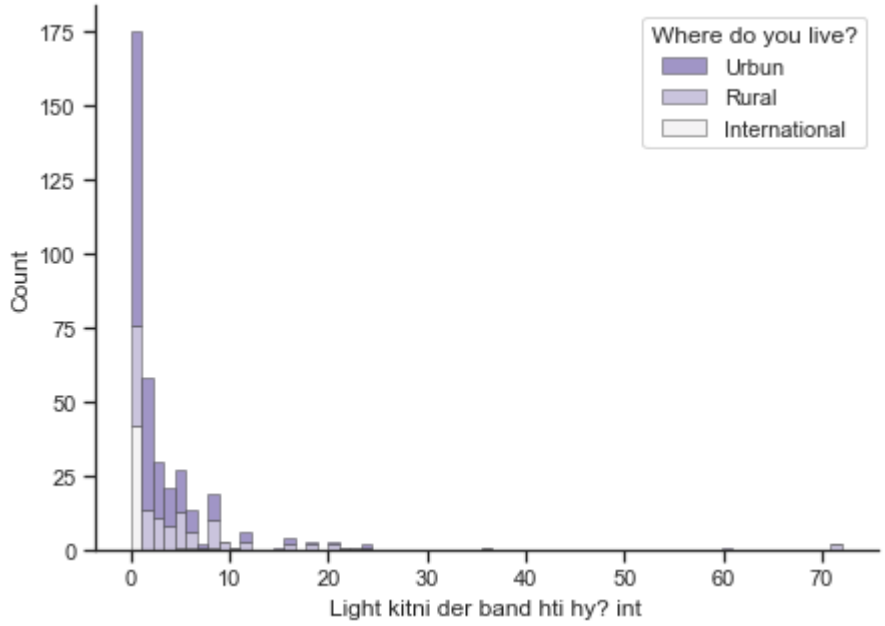
Out[85]:
```
<AxesSubplot:xlabel='Light kitni der band hti hy? int', ylabel='Count'>
```



Add Linewidth

In [86]:
```
import seaborn as sns
import matplotlib as mpl
import matplotlib.pyplot as plt

sns.set_theme(style="ticks")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
f, ax = plt.subplots(figsize=(7, 5))
sns.despine(f)

sns.histplot(x="Light kitni der band hti hy? int", hue="Where do you live?",  multiple=
             palette="light:m_r", edgecolor=".3", linewidth=.5, data=day5)
#
#
#
#
#     log_scale=True,
# )
```

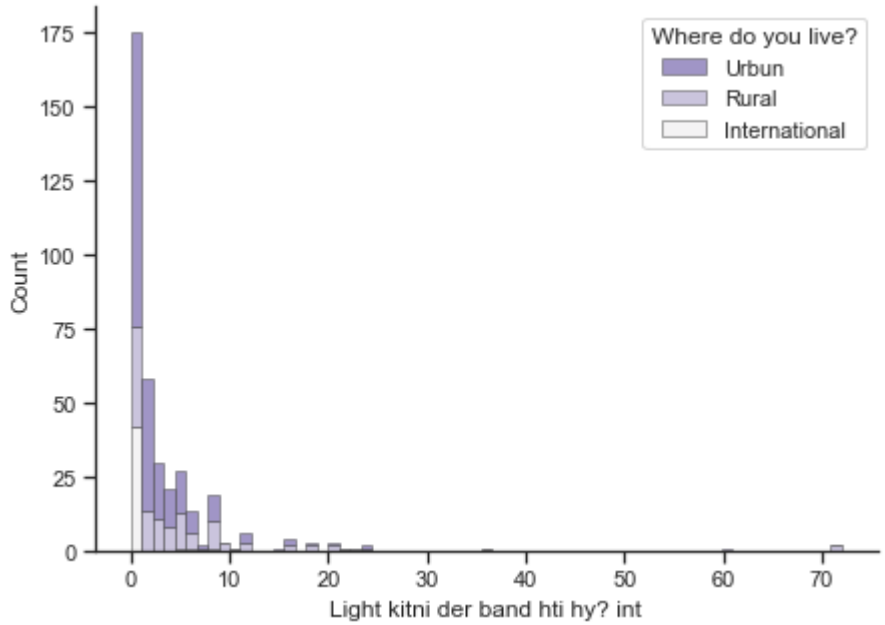
Out[86]:
```
<AxesSubplot:xlabel='Light kitni der band hti hy? int', ylabel='Count'>
```



Adjust Scale

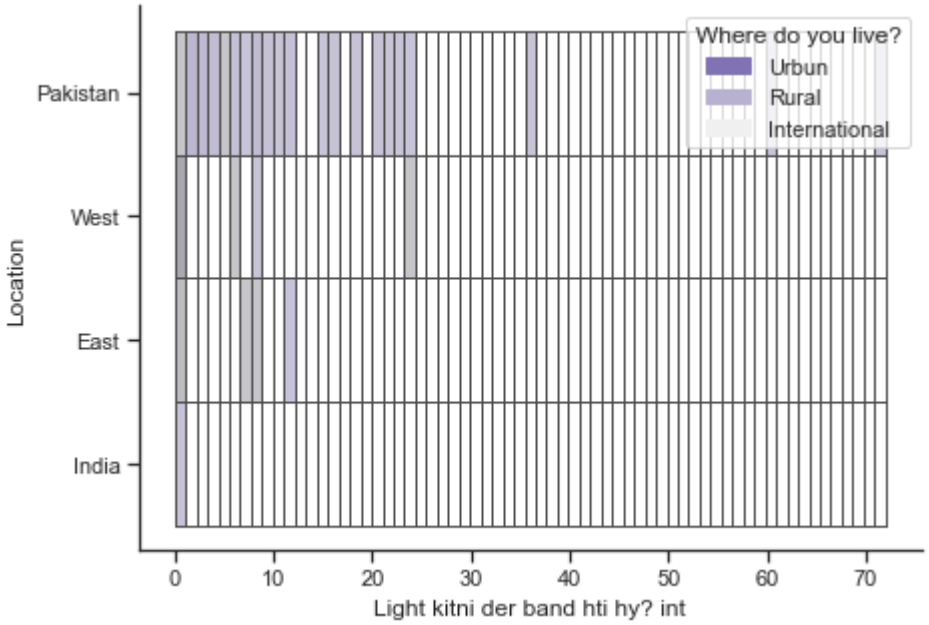
In [89]:
```
import seaborn as sns
import matplotlib as mpl
import matplotlib.pyplot as plt

sns.set_theme(style="ticks")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
f, ax = plt.subplots(figsize=(7, 5))
sns.despine(f)

sns.histplot(x="Light kitni der band hti hy? int", hue="Where do you live?",  multiple=
             palette="light:m_r", edgecolor=".3", linewidth=.5, log_scale=False, data=d
```

Out[89]:
```
<AxesSubplot:xlabel='Light kitni der band hti hy? int', ylabel='Count'>
```



In [93]:
```
import seaborn as sns
import matplotlib as mpl
import matplotlib.pyplot as plt

sns.set_theme(style="ticks")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
f, ax = plt.subplots(figsize=(7, 5))
sns.despine(f)

sns.histplot(x="Light kitni der band hti hy? int", y="Location", hue="Where do you live
             palette="light:m_r", edgecolor=".3", linewidth=.5, log_scale=False, data=d
```

Out[93]:
```
<AxesSubplot:xlabel='Light kitni der band hti hy? int', ylabel='Location'>
```

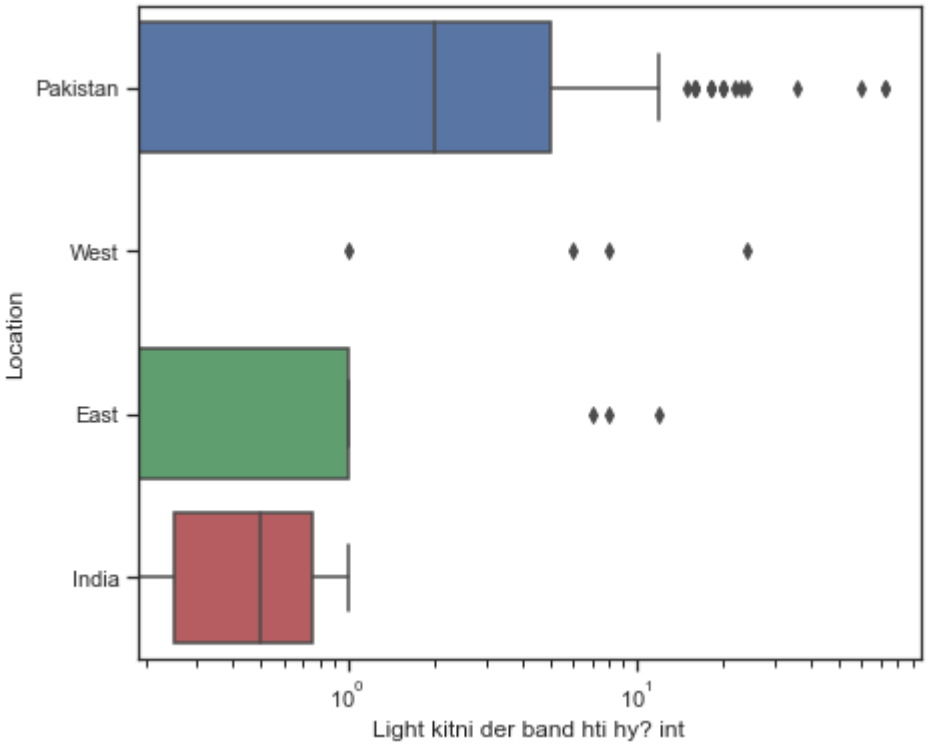


7- BoxPlot

- import libraries
- first read data
- show data

In [95]:
```
import seaborn as sns
import matplotlib.pyplot as plt

sns.set_theme(style="ticks")

# Initialize the figure with a logarithmic x axis
f, ax = plt.subplots(figsize=(7, 6))
ax.set_xscale("log")

# Load the example planets dataset
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Plot the orbital period with horizontal boxes
sns.boxplot(x="Light kitni der band hti hy? int", y="Location", data=day5)
#             whis=[0, 100], width=.6, palette="vlag")
```

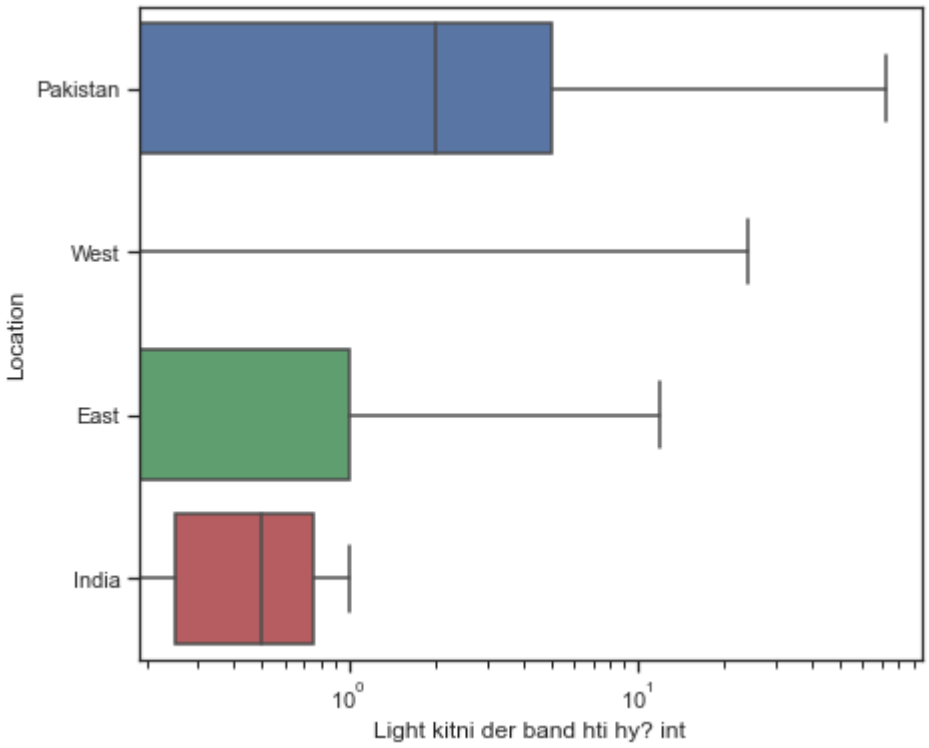
Out[95]: <AxesSubplot:xlabel='Light kitni der band hti hy? int', ylabel='Location'>



Add whis Element

In [96]:
```
import seaborn as sns
import matplotlib.pyplot as plt

sns.set_theme(style="ticks")

# Initialize the figure with a logarithmic x axis
f, ax = plt.subplots(figsize=(7, 6))
ax.set_xscale("log")

# Load the example planets dataset
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Plot the orbital period with horizontal boxes
sns.boxplot(x="Light kitni der band hti hy? int", y="Location", whis=[0, 100], data=day
#             width=.6, palette="vlag")
```

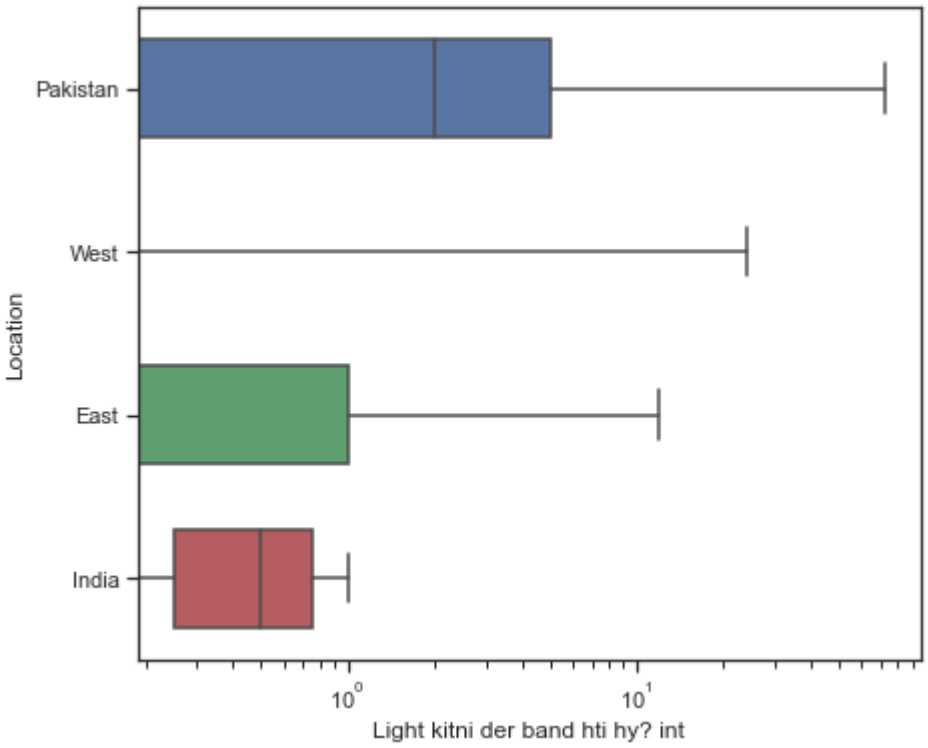
Out[96]: <AxesSubplot:xlabel='Light kitni der band hti hy? int', ylabel='Location'>



Add Width Element

In [97]:
```
import seaborn as sns
import matplotlib.pyplot as plt

sns.set_theme(style="ticks")

# Initialize the figure with a logarithmic x axis
f, ax = plt.subplots(figsize=(7, 6))
ax.set_xscale("log")

# Load the example planets dataset
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Plot the orbital period with horizontal boxes
sns.boxplot(x="Light kitni der band hti hy? int", y="Location", whis=[0, 100],
            width=.6, data=day5)
#               palette="vlag")
```

Out[97]:
```
<AxesSubplot:xlabel='Light kitni der band hti hy? int', ylabel='Location'>
```



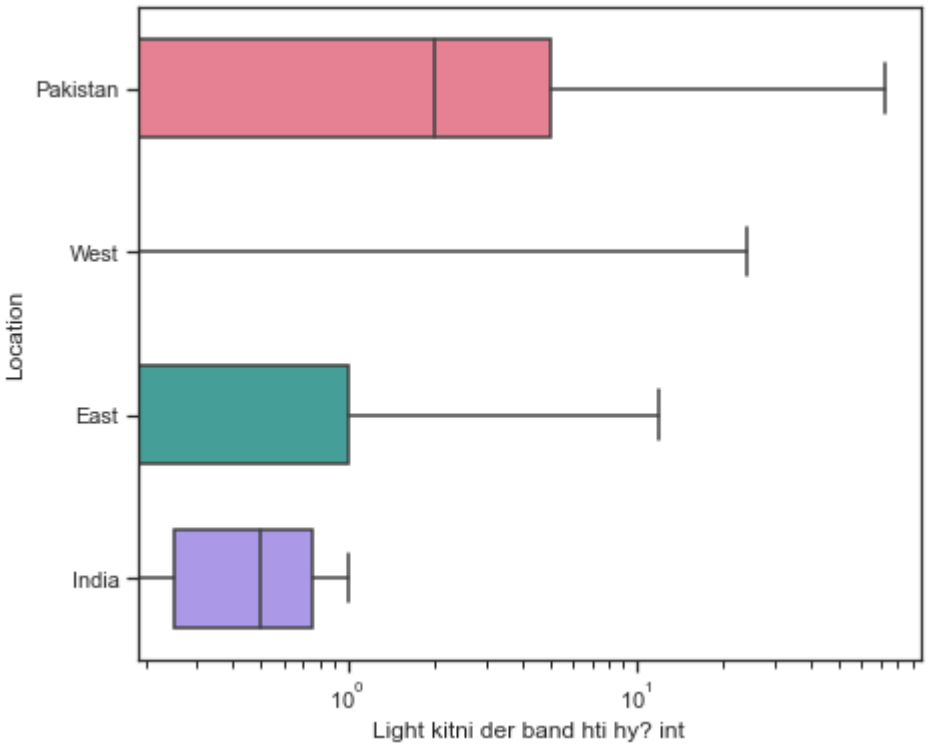
Add Palette Element

In [101…

```
import seaborn as sns
import matplotlib.pyplot as plt

sns.set_theme(style="ticks")

# Initialize the figure with a logarithmic x axis
f, ax = plt.subplots(figsize=(7, 6))
ax.set_xscale("log")

# Load the example planets dataset
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Plot the orbital period with horizontal boxes
sns.boxplot(x="Light kitni der band hti hy? int", y="Location", whis=[0, 100],
            width=.6, palette="husl", data=day5)
```

Out[101…

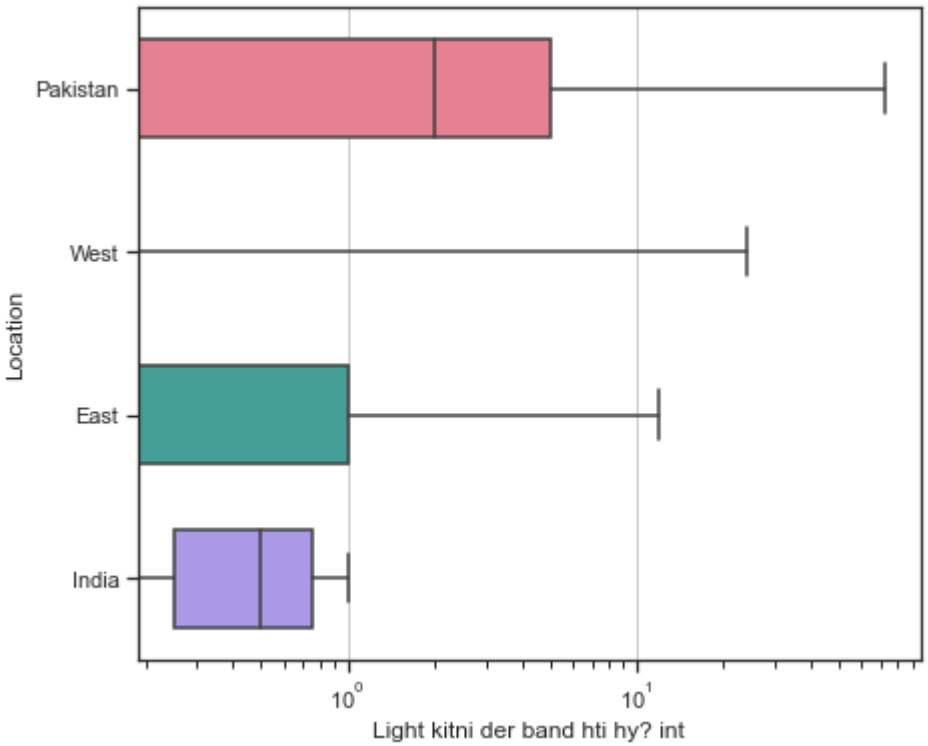
```
<AxesSubplot:xlabel='Light kitni der band hti hy? int', ylabel='Location'>
```



Add Axis Grid function

In [102…

```
import seaborn as sns
import matplotlib.pyplot as plt

sns.set_theme(style="ticks")

# Initialize the figure with a logarithmic x axis
f, ax = plt.subplots(figsize=(7, 6))
ax.set_xscale("log")

# Load the example planets dataset
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Plot the orbital period with horizontal boxes
sns.boxplot(x="Light kitni der band hti hy? int", y="Location", whis=[0, 100],
            width=.6, palette="husl", data=day5)
# Tweak the visual presentation
ax.xaxis.grid(True)
# ax.set(ylabel="")
# sns.despine(trim=True, left=True)
```



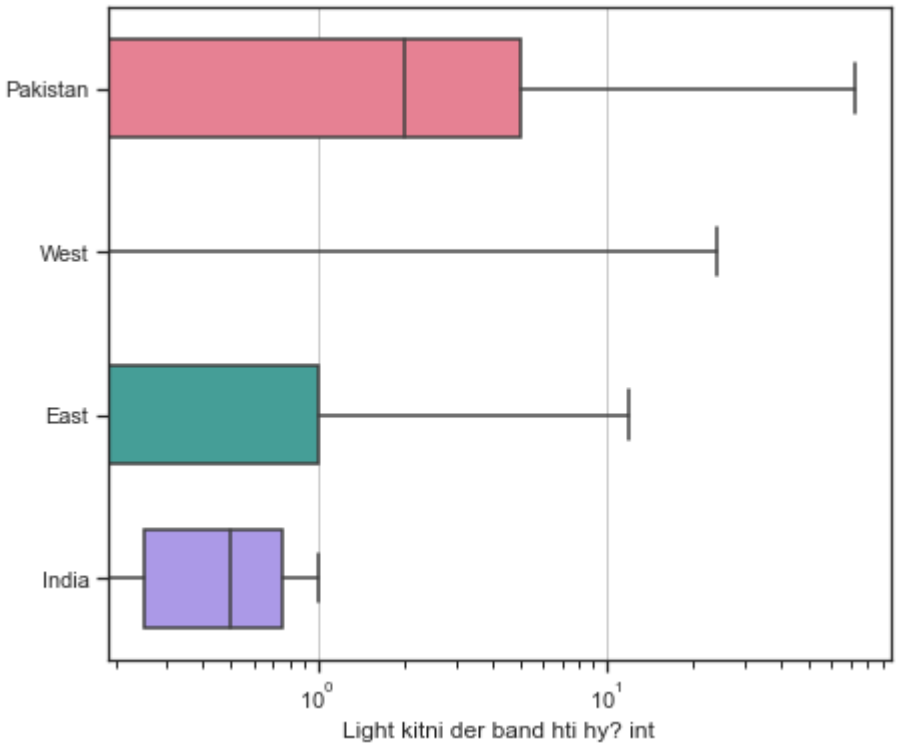
Set Label

In [103…

```
import seaborn as sns
import matplotlib.pyplot as plt

sns.set_theme(style="ticks")

# Initialize the figure with a logarithmic x axis
f, ax = plt.subplots(figsize=(7, 6))
ax.set_xscale("log")

# Load the example planets dataset
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Plot the orbital period with horizontal boxes
sns.boxplot(x="Light kitni der band hti hy? int", y="Location", whis=[0, 100],
            width=.6, palette="husl", data=day5)
# Tweak the visual presentation
ax.xaxis.grid(True)
ax.set(ylabel="")
# sns.despine(trim=True, left=True)
```

Out[103…

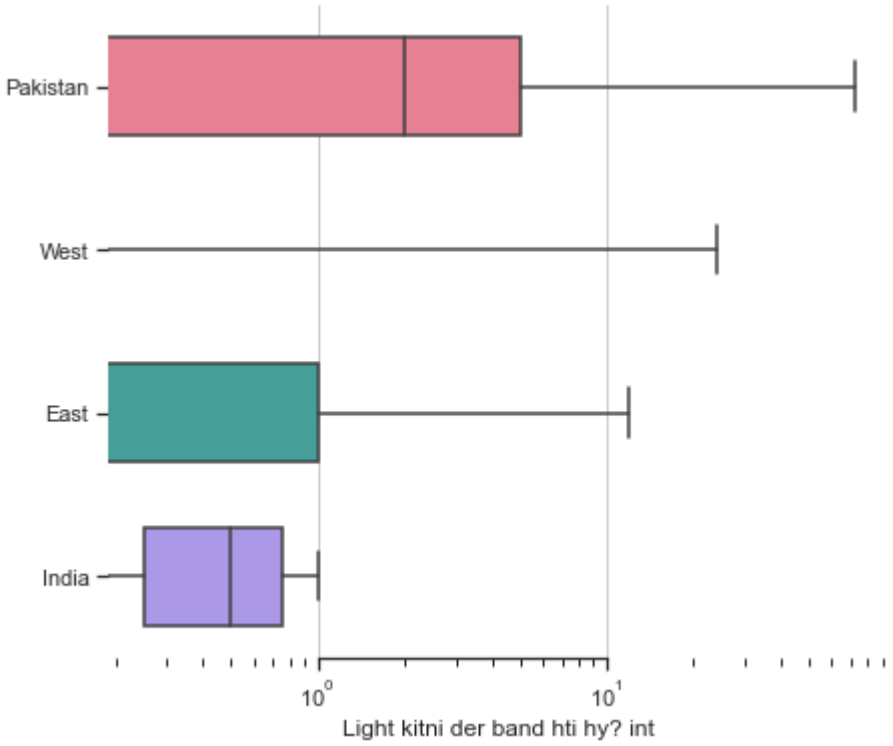
```
[Text(0, 0.5, '')]
```



Add Despine Function

In [104…

```
import seaborn as sns
import matplotlib.pyplot as plt

sns.set_theme(style="ticks")

# Initialize the figure with a logarithmic x axis
f, ax = plt.subplots(figsize=(7, 6))
ax.set_xscale("log")

# Load the example planets dataset
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Plot the orbital period with horizontal boxes
sns.boxplot(x="Light kitni der band hti hy? int", y="Location", whis=[0, 100],
            width=.6, palette="husl", data=day5)
# Tweak the visual presentation
ax.xaxis.grid(True)
ax.set(ylabel="")
sns.despine(trim=True, left=True)
```



8- StripPlot

- Import Libraries
- Read Data

In [105…

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

sns.set_theme(style="whitegrid")

# "Melt" the dataset to "long-form" or "tidy" representation
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
day5
```

Out[105…

	Gender	Location	Age	Qualification_completed	field_of_study	Purpose_for_chilla	What are you?	Blo grc
0	Male	Pakistan	36-40	Masters	Natural Sciences	to boost my skill set	Unemplyed	
1	Male	Pakistan	26-30	Bachelors	CS/IT	to boost my skill set	Student	
2	Male	Pakistan	31-35	Masters	Enginnering	Switch my field of study	Employed	

	Gender	Location	Age	Qualification_completed	field_of_study	Purpose_for_chilla	What are you?	Blc grc
3	Female	Pakistan	31-35	Masters	CS/IT	to boost my skill set	Employed	
4	Female	Pakistan	26-30	Masters	Enginnering	to boost my skill set	Student	
...	...	...	...	...	...	...	...	
370	Male	Pakistan	26-30	Masters	Enginnering	to boost my skill set	Employed	
371	Male	Pakistan	31-35	Bachelors	Enginnering	to boost my skill set	Employed	
372	Male	Pakistan	21-25	Bachelors	CS/IT	to boost my skill set	Employed	
373	Male	Pakistan	26-30	Masters	Enginnering	to boost my skill set	Employed	
374	Female	Pakistan	31-35	Masters	Mathematics	Switch my field of study	Unemplyed	

375 rows × 23 columns

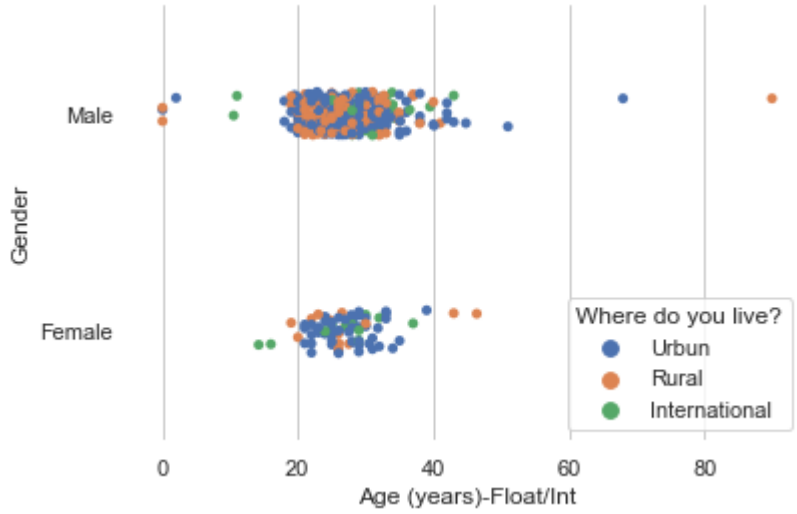
After Read data show in the form of graph

In [106…

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

sns.set_theme(style="whitegrid")

# "Melt" the dataset to "long-form" or "tidy" representation
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Initialize the figure
f, ax = plt.subplots()
sns.despine(bottom=True, left=True)

# Show each observation with a scatterplot
sns.stripplot(x="Age (years)-Float/Int", y="Gender", hue="Where do you live?", data=day
#               data=iris, dodge=True, alpha=.25, zorder=1)
```

Out[106…

```
<AxesSubplot:xlabel='Age (years)-Float/Int', ylabel='Gender'>
```



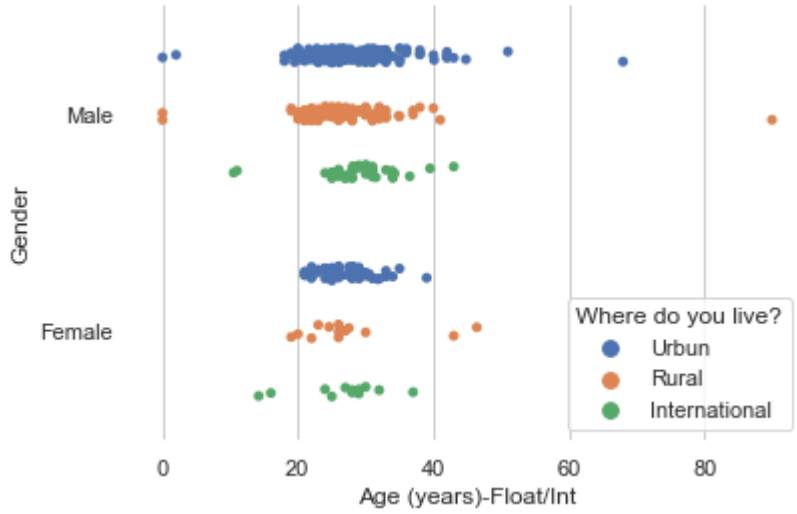
Add Dodge Element

In [108…

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

sns.set_theme(style="whitegrid")

# "Melt" the dataset to "long-form" or "tidy" representation
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Initialize the figure
f, ax = plt.subplots()
sns.despine(bottom=True, left=True)

# Show each observation with a scatterplot
sns.stripplot(x="Age (years)-Float/Int", y="Gender", hue="Where do you live?", dodge=Tr
#                 alpha=.25, zorder=1)
```

Out[108…

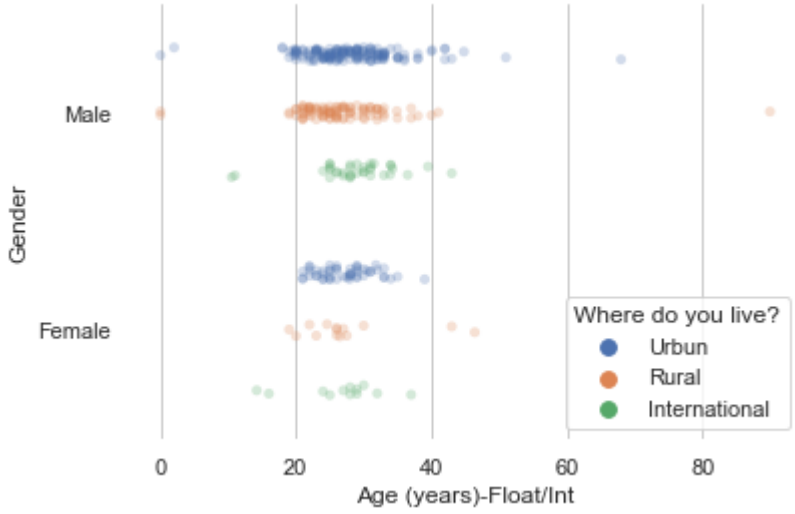
```
<AxesSubplot:xlabel='Age (years)-Float/Int', ylabel='Gender'>
```



Add Alpha Element

In [109…
```
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt

sns.set_theme(style="whitegrid")

# "Melt" the dataset to "long-form" or "tidy" representation
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Initialize the figure
f, ax = plt.subplots()
sns.despine(bottom=True, left=True)

# Show each observation with a scatterplot
sns.stripplot(x="Age (years)-Float/Int", y="Gender", hue="Where do you live?", dodge=Tr
#                   zorder=1)
```

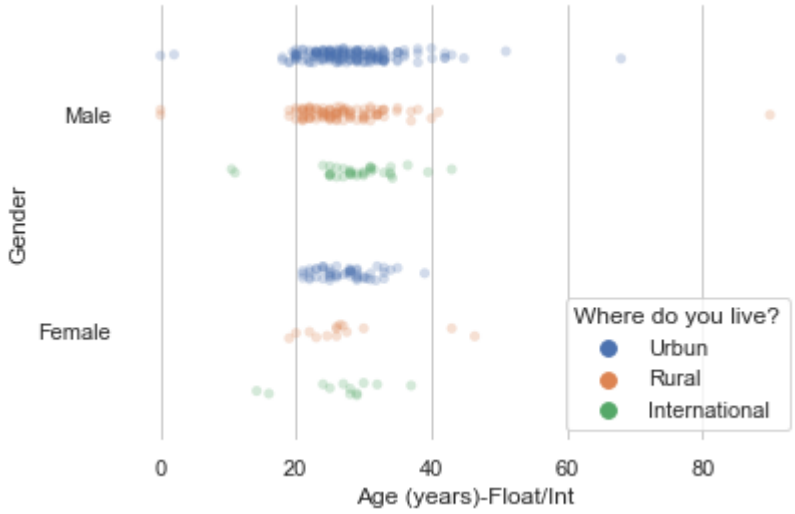
Out[109…
```
<AxesSubplot:xlabel='Age (years)-Float/Int', ylabel='Gender'>
```



Add zorder element

In [110…
```
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt

sns.set_theme(style="whitegrid")

# "Melt" the dataset to "long-form" or "tidy" representation
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Initialize the figure
f, ax = plt.subplots()
sns.despine(bottom=True, left=True)

# Show each observation with a scatterplot
sns.stripplot(x="Age (years)-Float/Int", y="Gender", hue="Where do you live?", dodge=Tr
              zorder=1, data=day5)
```

Out[110…
```
<AxesSubplot:xlabel='Age (years)-Float/Int', ylabel='Gender'>
```



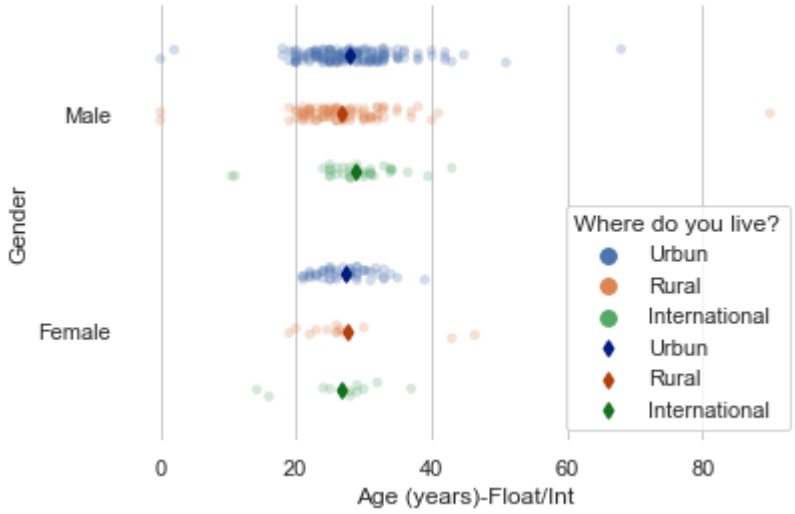
After Strip Plot now we are plot point plot in the same code

In [112…

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

sns.set_theme(style="whitegrid")

# "Melt" the dataset to "long-form" or "tidy" representation
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Initialize the figure
f, ax = plt.subplots()
sns.despine(bottom=True, left=True)

# Show each observation with a scatterplot
sns.stripplot(x="Age (years)-Float/Int", y="Gender", hue="Where do you live?", dodge=Tr
              zorder=1, data=day5)
# Show the conditional means, aligning each pointplot in the
# center of the strips by adjusting the width allotted to each
# category (.8 by default) by the number of hue levels
sns.pointplot(x="Age (years)-Float/Int", y="Gender", hue="Where do you live?",
              data=day5, dodge=.8 - .8 / 3,
              join=False, palette="dark",
              markers="d", scale=.75, ci=None)
```

Out[112…

```
<AxesSubplot:xlabel='Age (years)-Float/Int', ylabel='Gender'>
```



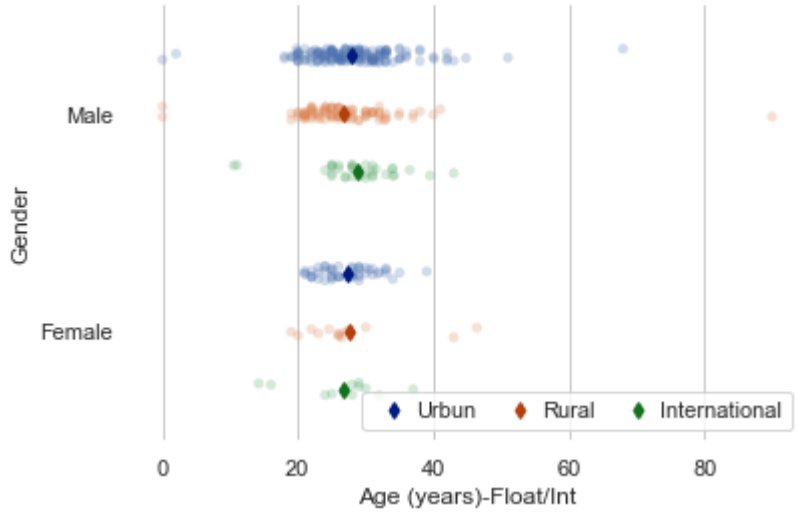
Add Different Functions to modify plot

In [114…

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

sns.set_theme(style="whitegrid")

# "Melt" the dataset to "long-form" or "tidy" representation
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Initialize the figure
f, ax = plt.subplots()
sns.despine(bottom=True, left=True)

# Show each observation with a scatterplot
sns.stripplot(x="Age (years)-Float/Int", y="Gender", hue="Where do you live?", dodge=Tr
              zorder=1, data=day5)
# Show the conditional means, aligning each pointplot in the
# center of the strips by adjusting the width allotted to each
# category (.8 by default) by the number of hue levels
sns.pointplot(x="Age (years)-Float/Int", y="Gender", hue="Where do you live?",
              data=day5, dodge=.8 - .8 / 3,
              join=False, palette="dark",
              markers="d", scale=.75, ci=None)
# Improve the legend
handles, labels = ax.get_legend_handles_labels()
ax.legend(handles[3:], labels[3:], title="",
          handletextpad=0, columnspacing=1,
          loc="lower right", ncol=3, frameon=True)
```

Out[114…

```
<matplotlib.legend.Legend at 0x22ecb35dfd0>
```

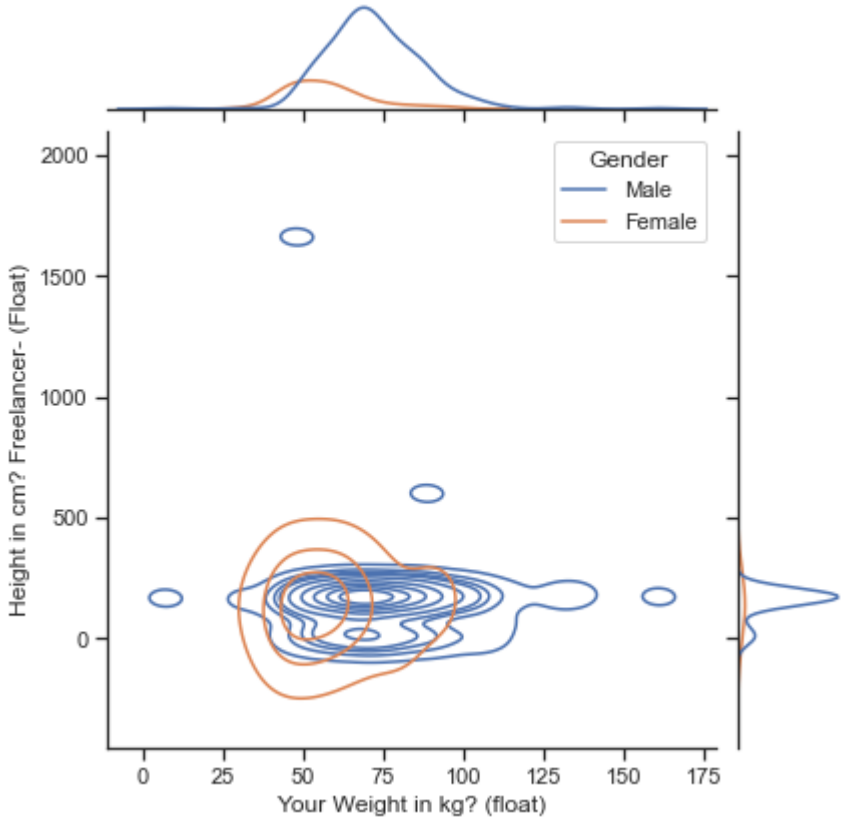


9- Joint Plot

- Import Libraries
- Read Data
- Show Graph

In [144…

```
import seaborn as sns
sns.set_theme(style="ticks")

# Load the penguins dataset
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Show the joint distribution using kernel density estimation
g = sns.jointplot(x="Your Weight in kg? (float)", y="Height in cm? Freelancer- (Float)"
    kind="kde", data=day5)
```



10- BoxenPlot

- import libraries
- read data
- set theme

In [145…

```
import seaborn as sns
sns.set_theme(style="whitegrid")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
day5
```

Out[145…

	Gender	Location	Age	Qualification_completed	field_of_study	Purpose_for_chilla	What are you?	Blo gro
0	Male	Pakistan	36-40	Masters	Natural Sciences	to boost my skill set	Unemplyed	
1	Male	Pakistan	26-30	Bachelors	CS/IT	to boost my skill set	Student	
2	Male	Pakistan	31-35	Masters	Enginnering	Switch my field of study	Employed	

	Gender	Location	Age	Qualification_completed	field_of_study	Purpose_for_chilla	What are you?	Blc grc
3	Female	Pakistan	31-35	Masters	CS/IT	to boost my skill set	Employed	
4	Female	Pakistan	26-30	Masters	Enginnering	to boost my skill set	Student	
...	...	...	...	...	...	...	...	
370	Male	Pakistan	26-30	Masters	Enginnering	to boost my skill set	Employed	
371	Male	Pakistan	31-35	Bachelors	Enginnering	to boost my skill set	Employed	
372	Male	Pakistan	21-25	Bachelors	CS/IT	to boost my skill set	Employed	
373	Male	Pakistan	26-30	Masters	Enginnering	to boost my skill set	Employed	
374	Female	Pakistan	31-35	Masters	Mathematics	Switch my field of study	Unemplyed	

375 rows × 23 columns

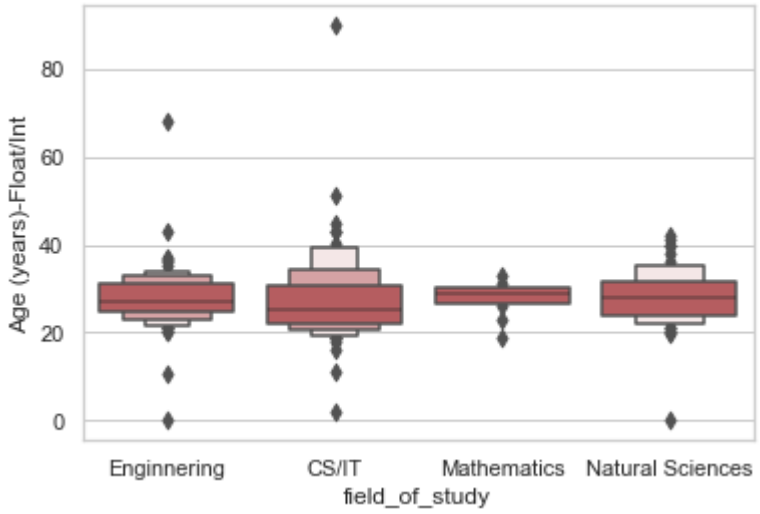
After reading data from the file now implement in the form of graph

In [147…

```
import seaborn as sns
sns.set_theme(style="whitegrid")

day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo
field_of_study_ranking = ["Enginnering", "CS/IT", "Mathematics", "Natural Sciences"]

sns.boxenplot(x="field_of_study", y="Age (years)-Float/Int",
              color="r", order=field_of_study_ranking,
              scale="linear", data=day5)
```

Out[147…

```
<AxesSubplot:xlabel='field_of_study', ylabel='Age (years)-Float/Int'>
```

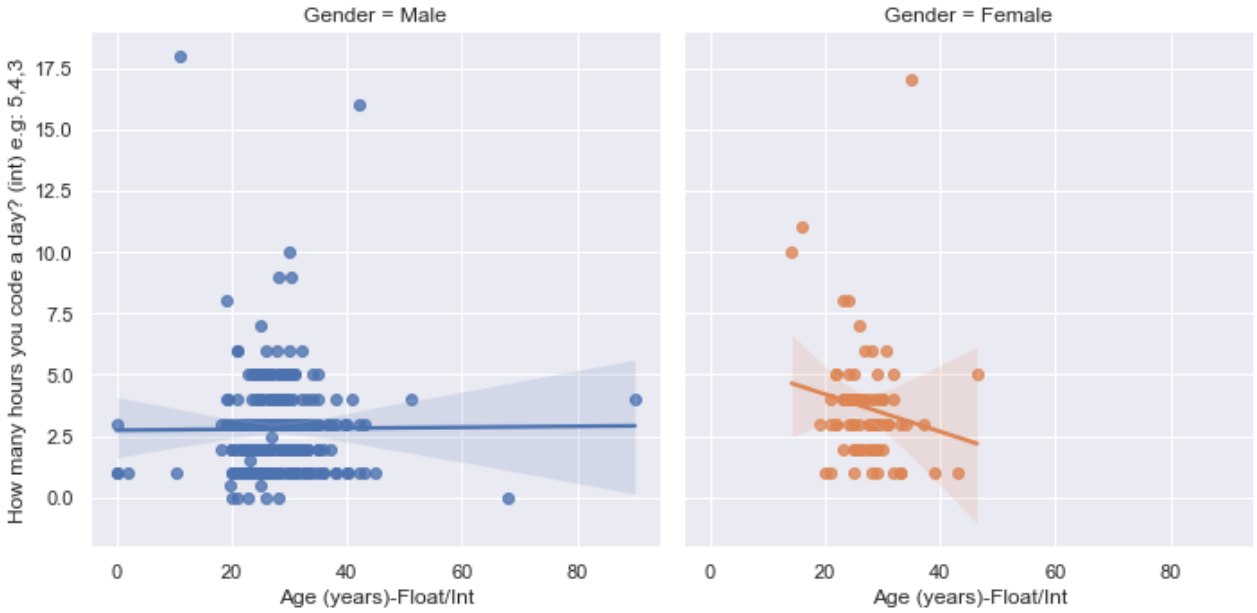


11- Implot

- import libraries
- read data
- set theme
- change palette according to our choice
- show read data in the form of graph

In [149…

```
import seaborn as sns
sns.set_theme(style="darkgrid")

# Load the example Titanic dataset
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Make a custom palette with gendered colors
pal = dict(male="#160b96", female="#d10869")

# Show the survival probability as a function of age and sex
g = sns.lmplot(x="Age (years)-Float/Int", y="How many hours you code a day? (int) e.g:
               col="Gender", hue="Gender", data=day5)
#                palette=pal, y_jitter=.02, logistic=True, truncate=False)
```



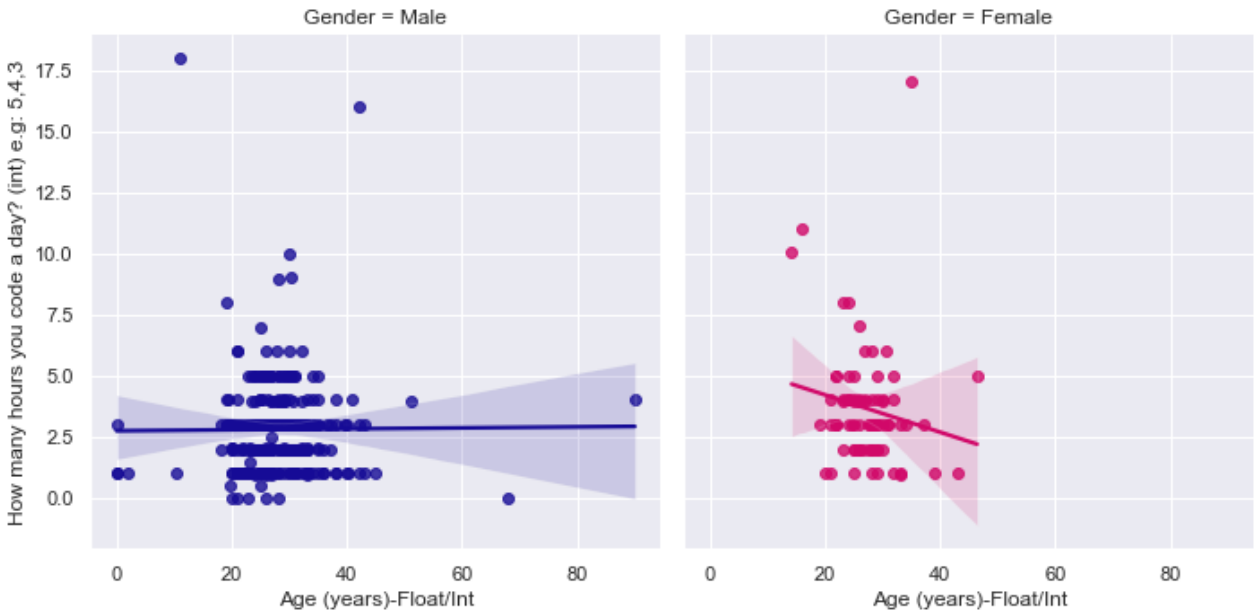
Add already make palette element

In [151…

```
import seaborn as sns
sns.set_theme(style="darkgrid")

# Load the example Titanic dataset
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Make a custom palette with gendered colors
pal = dict(Male="#160b96", Female="#d10869")

# Show the survival probability as a function of age and sex
g = sns.lmplot(x="Age (years)-Float/Int", y="How many hours you code a day? (int) e.g:
               col="Gender", hue="Gender", palette=pal, data=day5)
#                  y_jitter=.02, logistic=True, truncate=False)
```

Add Jitter Element

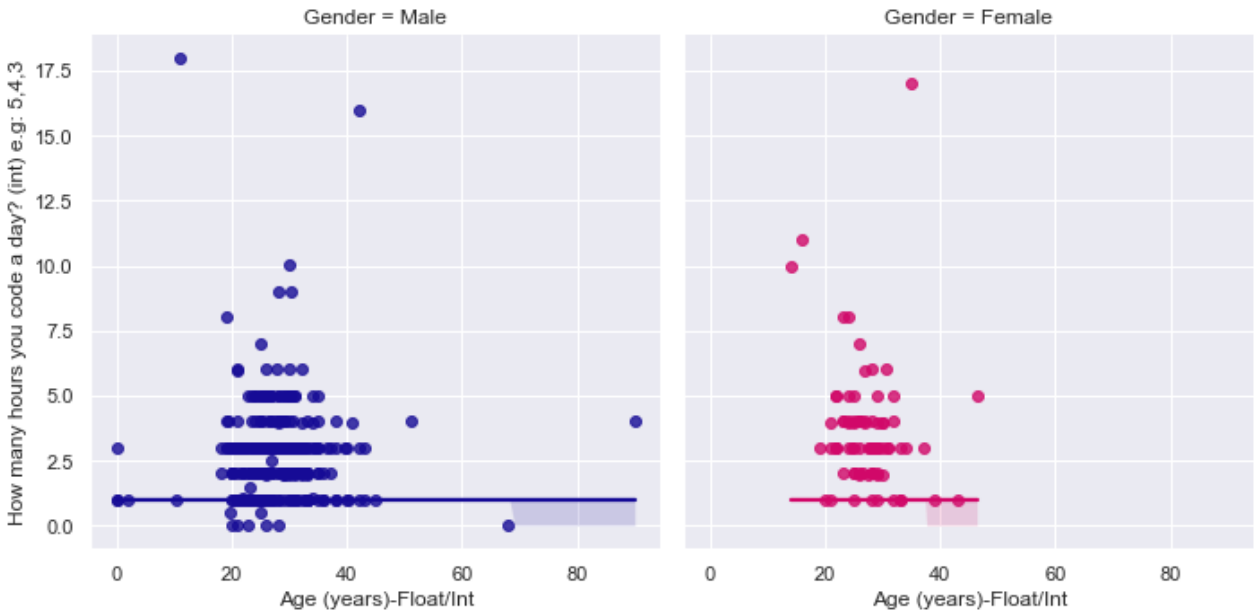
In [152…
```
import seaborn as sns
sns.set_theme(style="darkgrid")

# Load the example Titanic dataset
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Make a custom palette with gendered colors
pal = dict(Male="#160b96", Female="#d10869")

# Show the survival probability as a function of age and sex
g = sns.lmplot(x="Age (years)-Float/Int", y="How many hours you code a day? (int) e.g:
               col="Gender", hue="Gender", palette=pal, y_jitter=.02, data=day5)
#                 logistic=True, truncate=False)
```



Add Logistic Element

In [154…
```
import seaborn as sns
sns.set_theme(style="darkgrid")

# Load the example Titanic dataset
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Make a custom palette with gendered colors
pal = dict(Male="#160b96", Female="#d10869")

# Show the survival probability as a function of age and sex
g = sns.lmplot(x="Age (years)-Float/Int", y="How many hours you code a day? (int) e.g:
               col="Gender", hue="Gender", palette=pal, y_jitter=.02, logistic=True, da
#                  truncate=False)
```

```
C:\Users\Yasir Mehmood\anaconda3\lib\site-packages\statsmodels\genmod\families\links.py:
188: RuntimeWarning: overflow encountered in exp
  t = np.exp(-z)
C:\Users\Yasir Mehmood\anaconda3\lib\site-packages\statsmodels\genmod\families\links.py:
188: RuntimeWarning: overflow encountered in exp
  t = np.exp(-z)
```

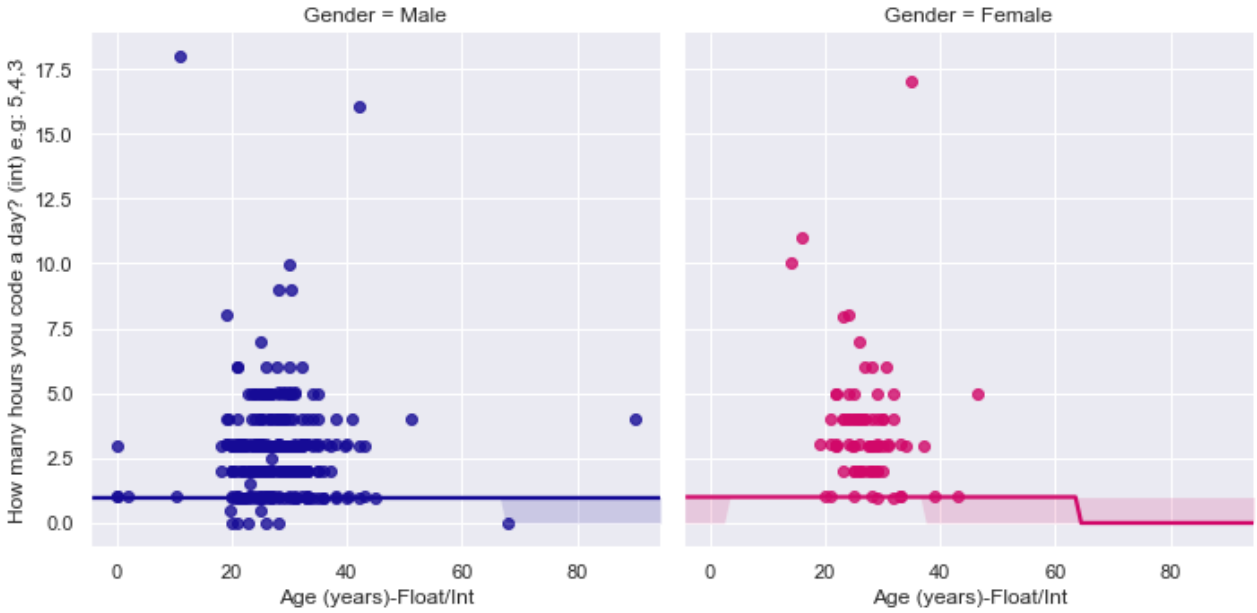


Now its final

In [155…

```
import seaborn as sns
sns.set_theme(style="darkgrid")

# Load the example Titanic dataset
day5=pd.read_csv("C:/Users/Yasir Mehmood/Downloads/Python Programs/Chilla_data2_for_plo

# Make a custom palette with gendered colors
pal = dict(Male="#160b96", Female="#d10869")

# Show the survival probability as a function of age and sex
g = sns.lmplot(x="Age (years)-Float/Int", y="How many hours you code a day? (int) e.g:
               col="Gender", hue="Gender", palette=pal, y_jitter=.02, logistic=True, tr
```

```
C:\Users\Yasir Mehmood\anaconda3\lib\site-packages\statsmodels\genmod\families\links.py:
188: RuntimeWarning: overflow encountered in exp
  t = np.exp(-z)
C:\Users\Yasir Mehmood\anaconda3\lib\site-packages\statsmodels\genmod\families\links.py:
188: RuntimeWarning: overflow encountered in exp
  t = np.exp(-z)
```


Gender = Male
Gender = Female
How many hours you code a day? (int) e.g: 5,4,3
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
0
20
40
60
80
Age (years)-Float/Int
Age (years)-Float/Int