```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import random
import warnings
warnings.filterwarnings("ignore")
```

```
from google.colab import files
uploaded=files.upload()
```

Choose Files No file chosen Upload widget is only available when the cell has been executed in the current browser session. Please rerun this cell to enable.

```
Saving ONLINE EDUCATION SYSTEM REVIEW.csv to ONLINE EDUCATION SYSTEM REVIEW.csv
```

```
import io
df2=pd.read_csv(io.BytesIO(uploaded['ONLINE EDUCATION SYSTEM REVIEW.csv']))
```

```
df2.head()
```

	Gender	Home Location	Level of Education	Age(Years)	Number of Subjects	Device type used to attend classes	Economic status	Family size	Interne facilit in you localit
0	Male	Urban	Under Graduate	18	11	Laptop	Middle Class	4	5
1	Male	Urban	Under Graduate	19	7	Laptop	Middle Class	4	
2	Male	Rural	Under Graduate	18	5	Laptop	Middle Class	5	2
3	Male	Urban	Under Graduate	18	5	Laptop	Middle Class	4	4
4	Male	Rural	Under Graduate	18	5	Laptop	Middle Class	4	3

5 rows × 23 columns

```
#check the shape of dataset
df2.shape
```

```
(1033, 23)
```

```
#check the size of dataset
df2.size
```

```
23759
```

```
#check the dulicates of dataset
df2.duplicated().sum()
```

```
0
```

```
df2.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1033 entries, 0 to 1032
Data columns (total 23 columns):
 #   Column                                                         Non-Null Count  Dtype
---  ------                                                         --------------  -----
 0   Gender                                                         1033 non-null   object
 1   Home Location                                                  1033 non-null   object
 2   Level of Education                                             1033 non-null   object
 3   Age(Years)                                                     1033 non-null   int64
 4   Number of Subjects                                             1033 non-null   int64
 5   Device type used to attend classes                             1033 non-null   object
 6   Economic status                                                1033 non-null   object
 7   Family size                                                    1033 non-null   int64
 8   Internet facility in your locality                            1033 non-null   int64
 9   Are you involved in any sports?                               1033 non-null   object
 10  Do elderly people monitor you?                                1033 non-null   object
 11  Study time (Hours)                                            1033 non-null   int64
 12  Sleep time (Hours)                                            1033 non-null   int64
 13  Time spent on social media (Hours)                            1033 non-null   int64
 14  Interested in Gaming?                                         1033 non-null   object
 15  Have separate room for studying?                              1033 non-null   object
 16  Engaged in group studies?                                     1033 non-null   object
 17  Average marks scored before pandemic in traditional classroom  1033 non-null   object
 18  Your interaction in online mode                               1033 non-null   int64
 19  Clearing doubts with faculties in online mode                 1033 non-null   int64
 20  Interested in?                                                1033 non-null   object
 21  Performance in online                                         1033 non-null   int64
 22  Your level of satisfaction in Online Education                1033 non-null   object
dtypes: int64(10), object(13)
memory usage: 185.7+ KB
```

```
df2.describe()
```

	Age(Years)	Number of Subjects	Family size	Internet facility in your locality	Study time (Hours)	Sleep time (Hours)	Time spent on social media (Hours)	Your interaction in online mode	Clearin with facu onl
count	1033.000000	1033.00000	1033.000000	1033.000000	1033.000000	1033.000000	1033.000000	1033.000000	103
mean	19.798645	7.03485	4.413359	3.586641	4.325266	6.947725	2.636980	2.930300	
std	3.199158	2.81034	1.236750	1.026063	2.134233	1.324039	1.859625	1.105387	
min	9.000000	1.00000	2.000000	1.000000	1.000000	1.000000	1.000000	1.000000	
25%	18.000000	6.00000	4.000000	3.000000	3.000000	6.000000	1.000000	2.000000	
50%	19.000000	7.00000	4.000000	4.000000	4.000000	7.000000	2.000000	3.000000	
75%	20.000000	8.00000	5.000000	4.000000	6.000000	8.000000	3.000000	4.000000	
max	40.000000	20.00000	10.000000	5.000000	10.000000	10.000000	10.000000	5.000000	

```
df2.nunique()
```

```
Gender                                                            2
Home Location                                                     2
Level of Education                                                3
Age(Years)                                                       24
Number of Subjects                                               20
Device type used to attend classes                                3
Economic status                                                   3
Family size                                                       9
Internet facility in your locality                                5
Are you involved in any sports?                                   2
Do elderly people monitor you?                                    2
Study time (Hours)                                               10
Sleep time (Hours)                                               10
Time spent on social media (Hours)                               10
Interested in Gaming?                                             2
Have separate room for studying?                                  2
Engaged in group studies?                                         2
Average marks scored before pandemic in traditional classroom    10
Your interaction in online mode                                   5
Clearing doubts with faculties in online mode                     5
Interested in?                                                    3
Performance in online                                             9
Your level of satisfaction in Online Education                    3
dtype: int64
```

```
df2.isnull().sum()
```

```
Gender                                                           0
Home Location                                                    0
Level of Education                                               0
Age(Years)                                                       0
Number of Subjects                                               0
Device type used to attend classes                               0
Economic status                                                  0
Family size                                                      0
Internet facility in your locality                               0
Are you involved in any sports?                                  0
Do elderly people monitor you?                                   0
Study time (Hours)                                               0
Sleep time (Hours)                                               0
```

```
Time spent on social media (Hours)                           0
Interested in Gaming?                                        0
Have separate room for studying?                             0
Engaged in group studies?                                    0
Average marks scored before pandemic in traditional classroom    0
Your interaction in online mode                              0
Clearing doubts with faculties in online mode                0
Interested in?                                               0
Performance in online                                        0
Your level of satisfaction in Online Education               0
dtype: int64
```

```
df2.corr()
```

	Age(Years)	Number of Subjects	Family size	Internet facility in your locality	Study time (Hours)	Sleep time (Hours)	Time spent on social media (Hours)	Your interaction in online mode	Clearin with f in onl
Age(Years)	1.000000	-0.011505	0.016893	0.072625	0.005344	-0.072031	0.005455	0.171943	
Number of Subjects	-0.011505	1.000000	0.035997	-0.025915	0.024280	0.051531	0.004833	-0.005144	-
Family size	0.016893	0.035997	1.000000	-0.020996	0.060614	-0.015787	0.053512	-0.024268	-
Internet facility in your locality	0.072625	-0.025915	-0.020996	1.000000	-0.011554	0.051838	0.082772	0.204391	
Study time (Hours)	0.005344	0.024280	0.060614	-0.011554	1.000000	-0.044385	-0.125986	0.148859	
Sleep time (Hours)	-0.072031	0.051531	-0.015787	0.051838	-0.044385	1.000000	0.144587	0.032598	
Time spent on social media (Hours)	0.005455	0.004833	0.053512	0.082772	-0.125986	0.144587	1.000000	-0.083972	-
Your interaction in online mode	0.171943	-0.005144	-0.024268	0.204391	0.148859	0.032598	-0.083972	1.000000	
Clearing doubts with faculties in online mode	0.125559	-0.008595	-0.019461	0.158990	0.175169	0.043402	-0.101847	0.723216	
Performance in online	0.114965	0.012740	0.001549	0.257339	0.134344	0.065020	-0.086568	0.557507	

```
#removing unimportant coloumns
df2.drop(["Have separate room for studying?"],axis=1,inplace=True)
df2.columns
```

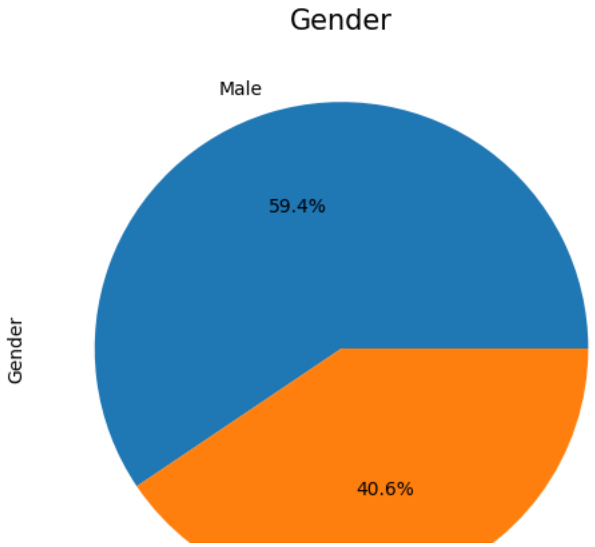
```
Index(['Gender', 'Home Location', 'Level of Education', 'Age(Years)',
       'Number of Subjects', 'Device type used to attend classes',
       'Economic status', 'Family size', 'Internet facility in your locality',
       'Are you involved in any sports?', 'Do elderly people monitor you?',
       'Study time (Hours)', 'Sleep time (Hours)',
       'Time spent on social media (Hours)', 'Interested in Gaming?',
       'Engaged in group studies?',
       'Average marks scored before pandemic in traditional classroom',
       'Your interaction in online mode',
       'Clearing doubts with faculties in online mode', 'Interested in?',
       'Performance in online',
       'Your level of satisfaction in Online Education'],
      dtype='object')
```

```
df2['Gender'].value_counts()
```

```
Male      614
Female    419
Name: Gender, dtype: int64
```

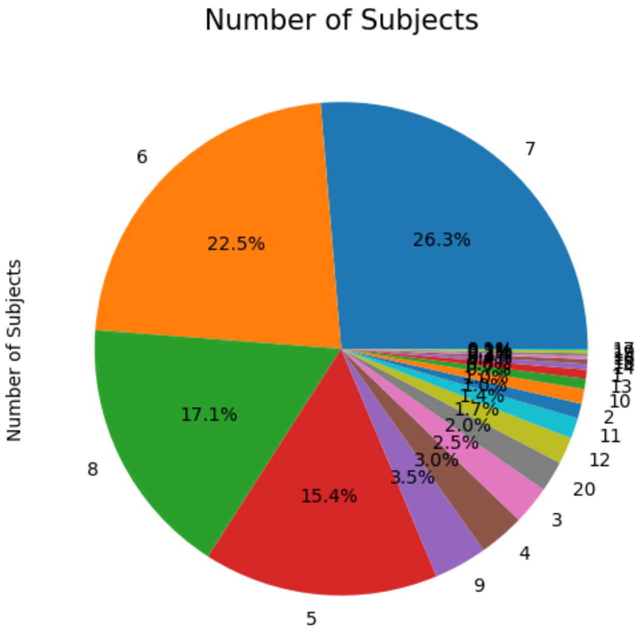
```
#plotting pie chart
#Gender impacts
plt.figure(figsize=(6,6))
df2['Gender'].value_counts().plot(kind="pie",autopct='%1.1f%%')
plt.title('Gender',size=15)
```

```
Text(0.5, 1.0, 'Gender')
```

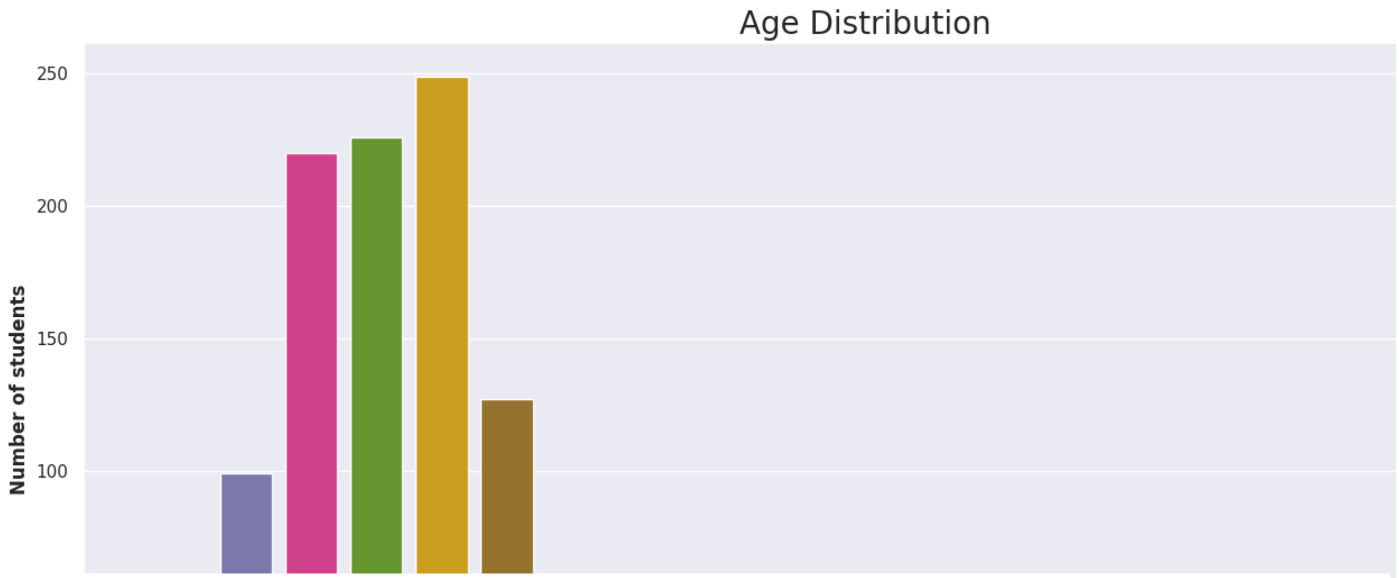


```
plt.figure(figsize=(6,6))
df2['Number of Subjects'].value_counts().plot(kind="pie",autopct='%1.1f%%')
plt.title('Number of Subjects',size=15)
```

```
Text(0.5, 1.0, 'Number of Subjects')
```

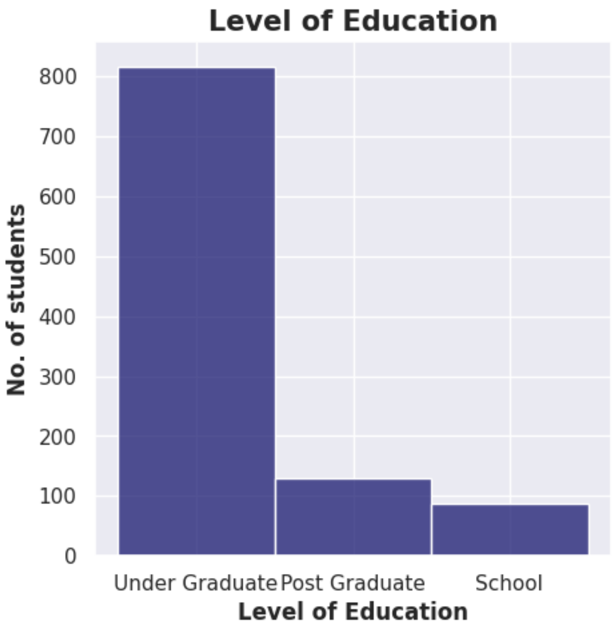


```
#age impacts in online
# plotting the count plot

plt.figure(figsize=(18, 8))
sns.set(style='darkgrid')
plot = sns.countplot(x='Age(Years)', data=df2, palette= 'Dark2')  # palette are to control colors or patterns of a colume
plt.title('Age Distribution', size= 20)
plt.xlabel('Age groups', weight='bold')
plt.ylabel('Number of students', weight='bold')
plt.show()
```



```
# Checking value counts for 'Level of Education' column.

df2['Level of Education'].value_counts()

     Under Graduate    817
     Post Graduate     129
     School             87
     Name: Level of Education, dtype: int64
```

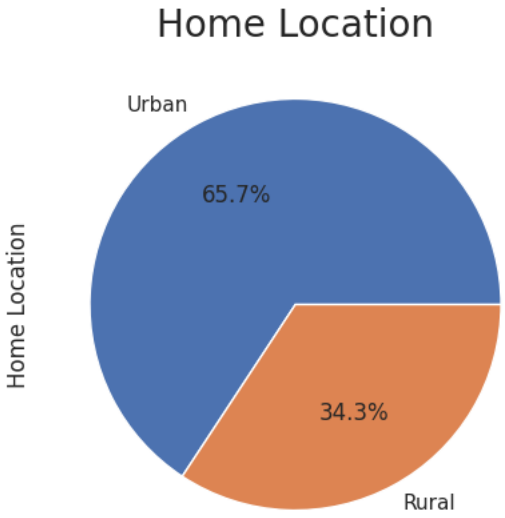
```
## plotting the Histplot

plt.figure(figsize=(5,5))
sns.histplot(df2, x = df2['Level of Education'], color = 'midnightblue')
plt.title('Level of Education',weight='bold', size = 15)
plt.xlabel('Level of Education',weight='bold')
plt.ylabel('No. of students',weight='bold')
plt.show()
```



```
 #Checking value counts for 'Home Location' column.

df2['Home Location'].value_counts()

     Urban    679
     Rural    354
     Name: Home Location, dtype: int64
```

```
# plotting the pia chart.

plt.figure(figsize=(5,5))
df2['Home Location'].value_counts().plot(kind = "pie" ,autopct='%1.1f%%')    # autopct display the percent value using string formatting
plt.title('Home Location',size=20)
```

```
     Text(0.5, 1.0, 'Home Location')
```

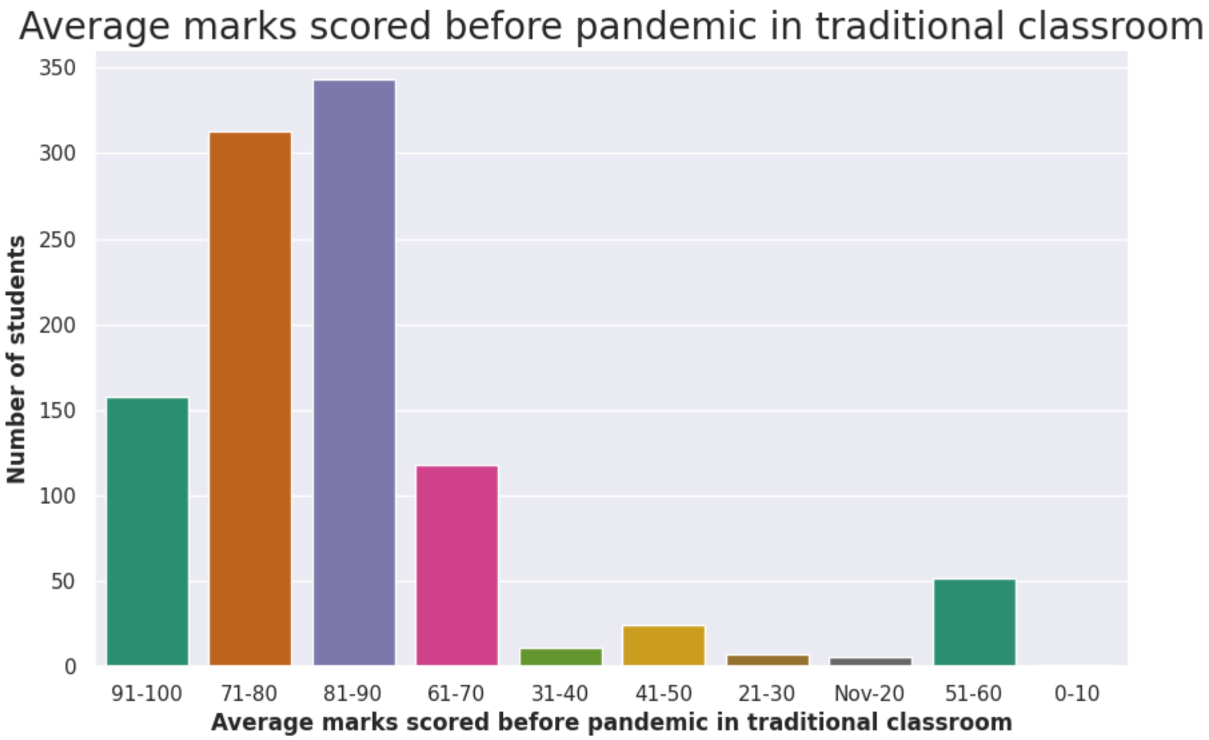


```
# Checking value counts for 'Device type used to attend classes' column.

df2['Device type used to attend classes'].value_counts()
```

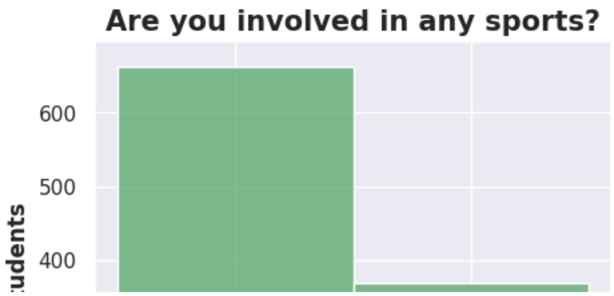
```
     Laptop     672
     Mobile     334
     Desktop     27
     Name: Device type used to attend classes, dtype: int64
```

```
# plotting the count plot

plt.figure(figsize=(10, 6))
sns.set(style='darkgrid')
plot = sns.countplot(x='Device type used to attend classes', data=df2, palette= 'Dark2')  # palette are to control colors or patterns of a co
plt.title('Device type', size= 20)
plt.xlabel('Device type used to attend classes', weight='bold')
plt.ylabel('Number of students', weight='bold')
plt.show()
```

```
# plotting the count plot

plt.figure(figsize=(10, 6))
sns.set(style='darkgrid')
plot = sns.countplot(x='Average marks scored before pandemic in traditional classroom', data=df2, palette= 'Dark2')  # palette are to control
plt.title('Average marks scored before pandemic in traditional classroom', size= 20)
plt.xlabel('Average marks scored before pandemic in traditional classroom', weight='bold')
plt.ylabel('Number of students', weight='bold')
plt.show()
```



```
# Checking value counts for 'Are you involved in any sports?' column.

df2['Are you involved in any sports?'].value_counts()

     No     663
     Yes    370
     Name: Are you involved in any sports?, dtype: int64


# plotting the histplot

plt.figure(figsize=(5,5))
sns.histplot(df2, x = df2['Are you involved in any sports?'],color='g')
plt.title('Are you involved in any sports?',weight='bold', size = 15)
plt.xlabel('Are you involved in any sports?',weight='bold')
plt.ylabel('No. of students',weight='bold')
plt.show()
```

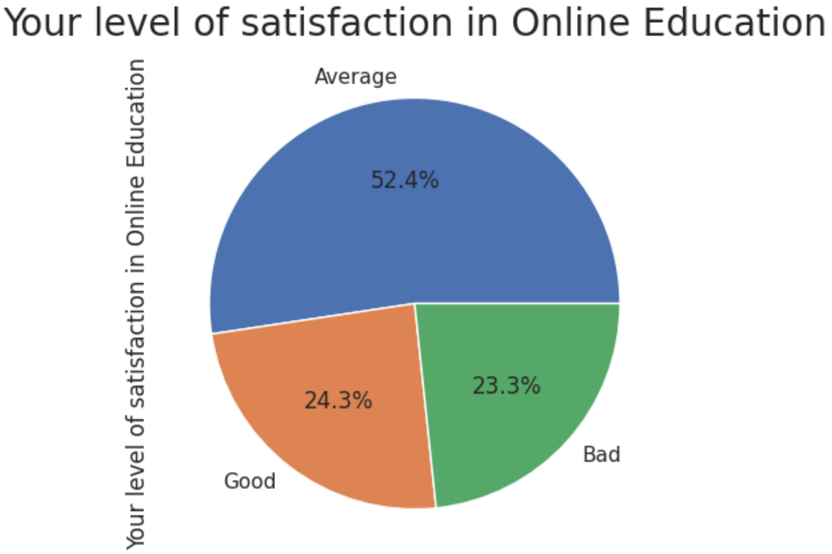


```
# Checking value counts for 'Are you involved in any sports?' column.

df2['Your level of satisfaction in Online Education'].value_counts()
```

```
    Average    541
    Good       251
    Bad        241
    Name: Your level of satisfaction in Online Education, dtype: int64
```

```
# plotting the pia chart.

plt.figure(figsize=(5,5))
df2['Your level of satisfaction in Online Education'].value_counts().plot(kind = "pie" ,autopct='%1.1f%%')    # autopct display the percent v
plt.title('Your level of satisfaction in Online Education',size=20)
```

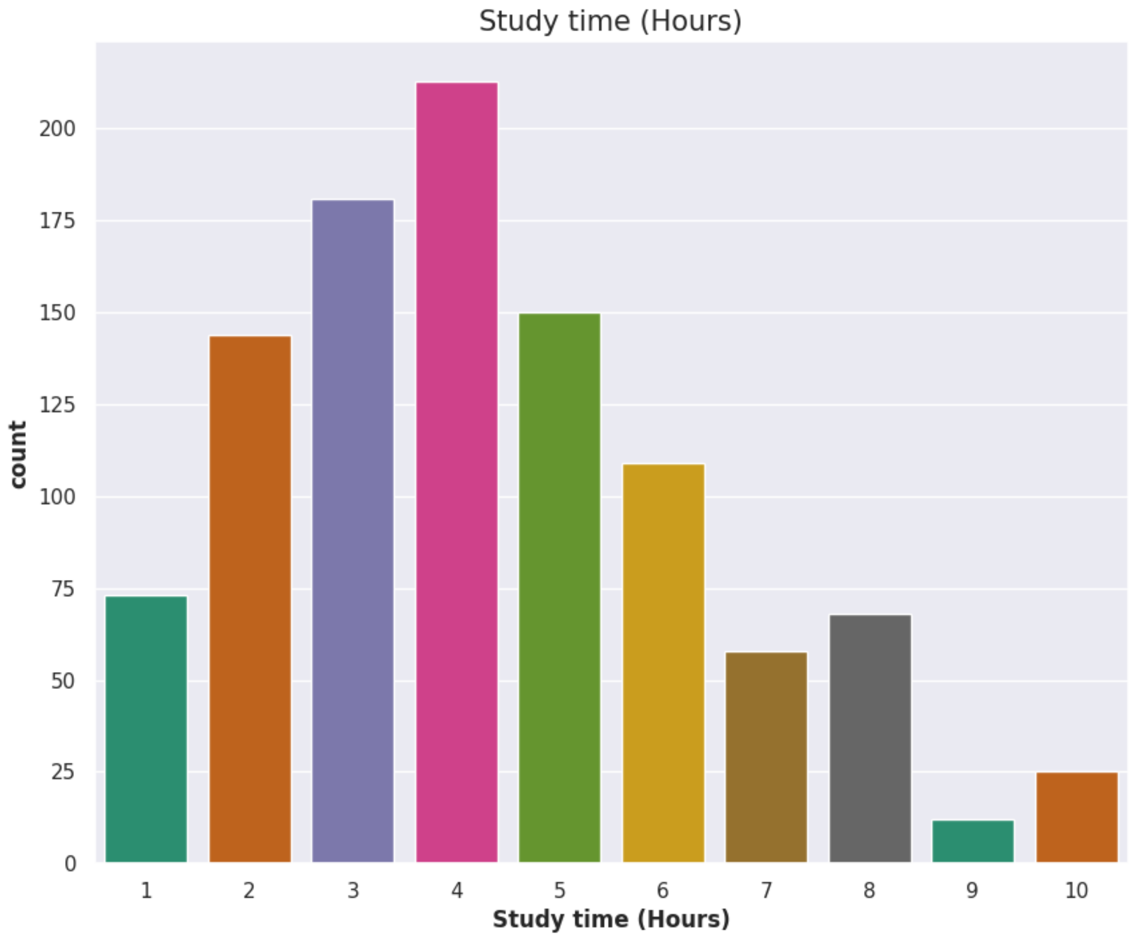
```
    Text(0.5, 1.0, 'Your level of satisfaction in Online Education')
```



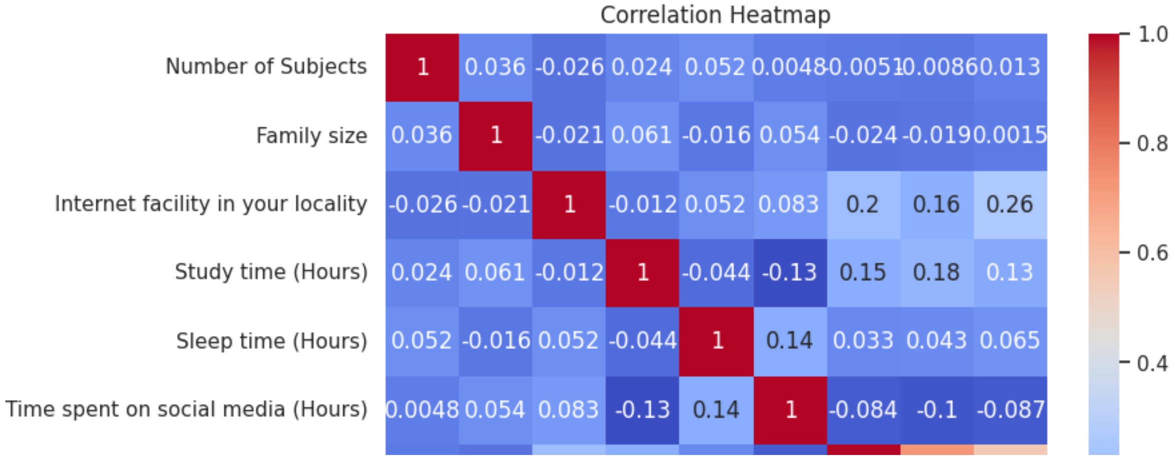
```
df2['Study time (Hours)'].value_counts()
```

```
    4     213
    3     181
    5     150
    2     144
    6     109
    1      73
    8      68
    7      58
    10     25
    9      12
    Name: Study time (Hours), dtype: int64
```

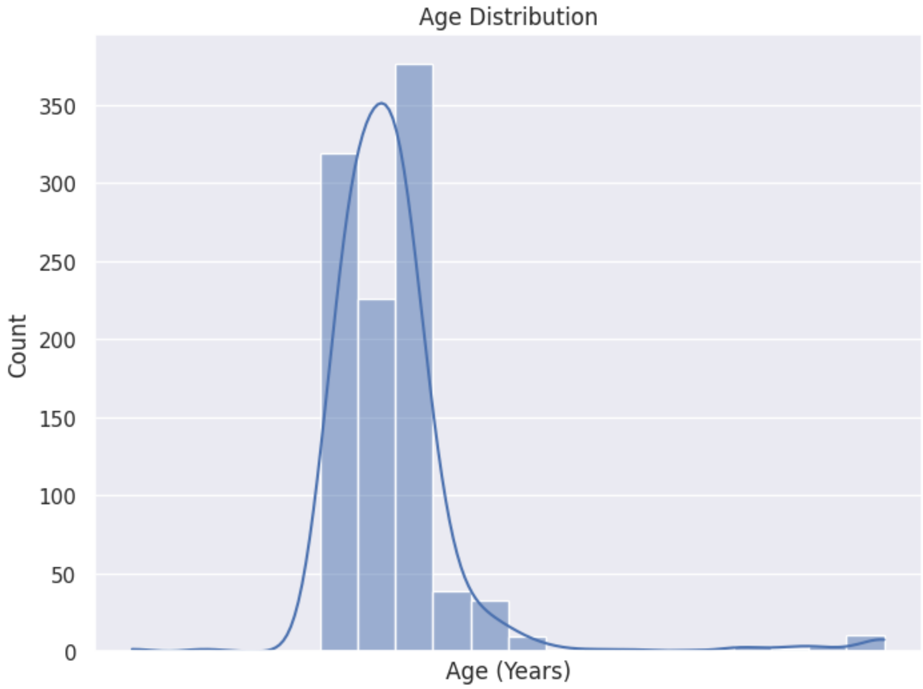
```
# plotting the count plot

plt.figure(figsize=(10, 8))
sns.set(style='darkgrid')
plot = sns.countplot(x='Study time (Hours)', data=df2, palette= 'Dark2')  # palette are to control colors or patterns of a colume
plt.title('Study time (Hours)', size= 15)
plt.xlabel('Study time (Hours)', weight='bold')
plt.ylabel('count', weight='bold')
plt.show()
```



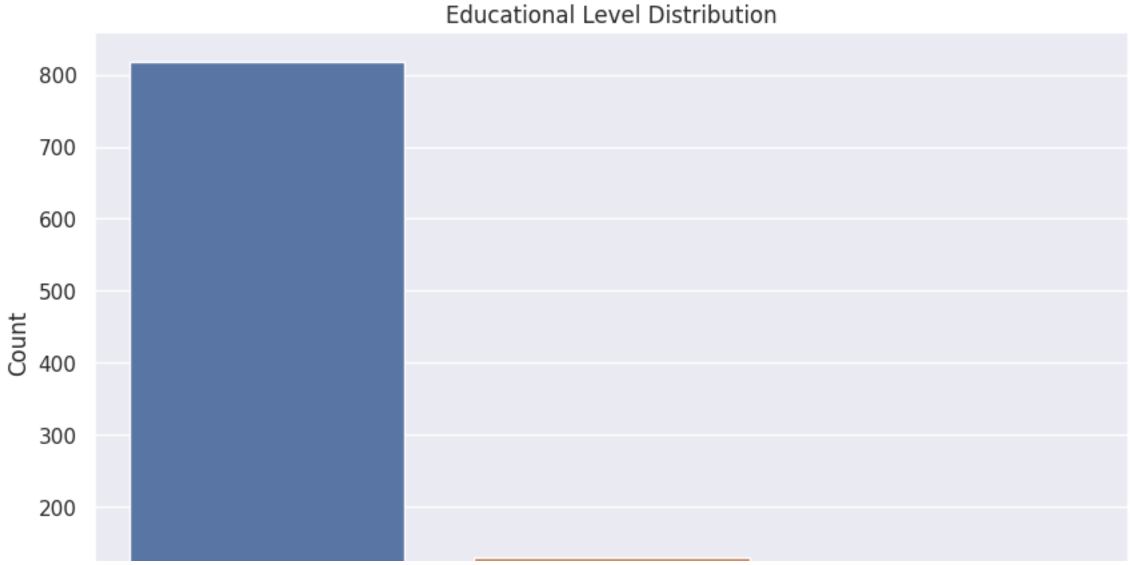
```
import seaborn as sns

# Assuming 'df2' is your DataFrame
correlation_matrix = df2.corr()
plt.figure(figsize=(8, 6))
sns.heatmap(correlation_matrix, annot=True, cmap='coolwarm')
plt.title('Correlation Heatmap')
plt.show()
```



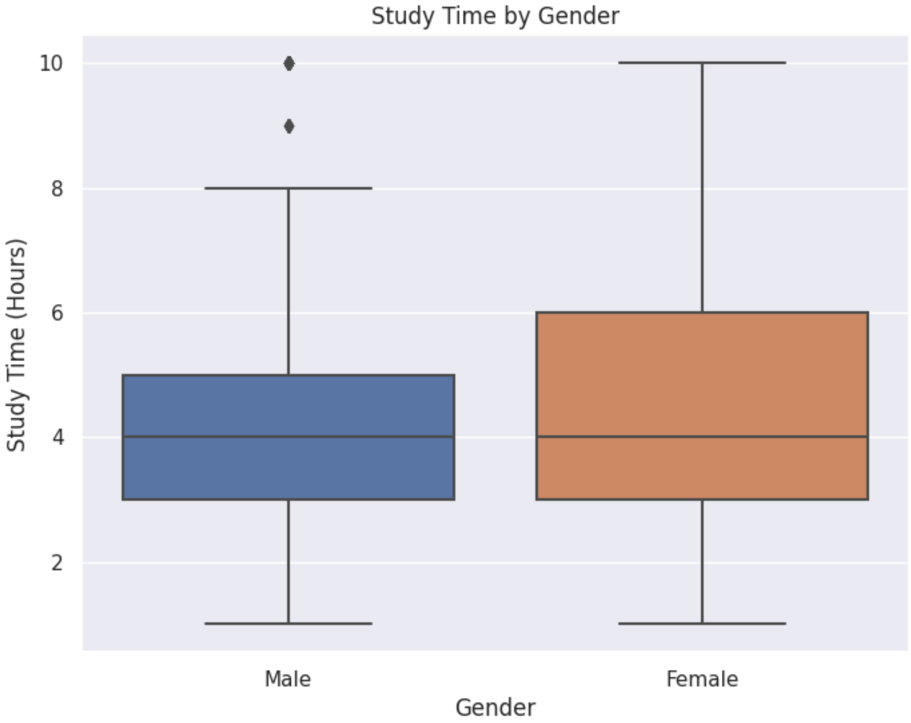
```
plt.figure(figsize=(8, 6))
sns.histplot(data=df2, x="Age(Years)", bins=20, kde=True)
plt.title("Age Distribution")
plt.xlabel("Age (Years)")
plt.ylabel("Count")
plt.show()
```



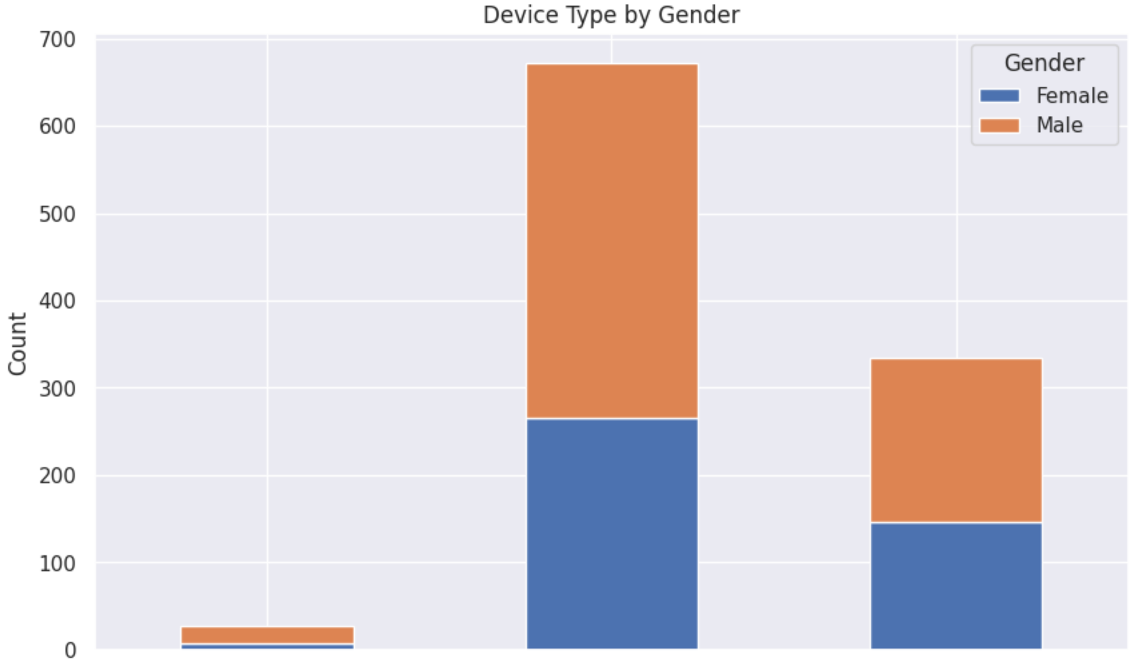
```
plt.figure(figsize=(10, 6))
sns.countplot(data=df2, x="Level of Education", order=df2["Level of Education"].value_counts().index)
plt.title("Educational Level Distribution")
plt.xlabel("Level of Education")
plt.ylabel("Count")
plt.xticks(rotation=45)
plt.show()
```



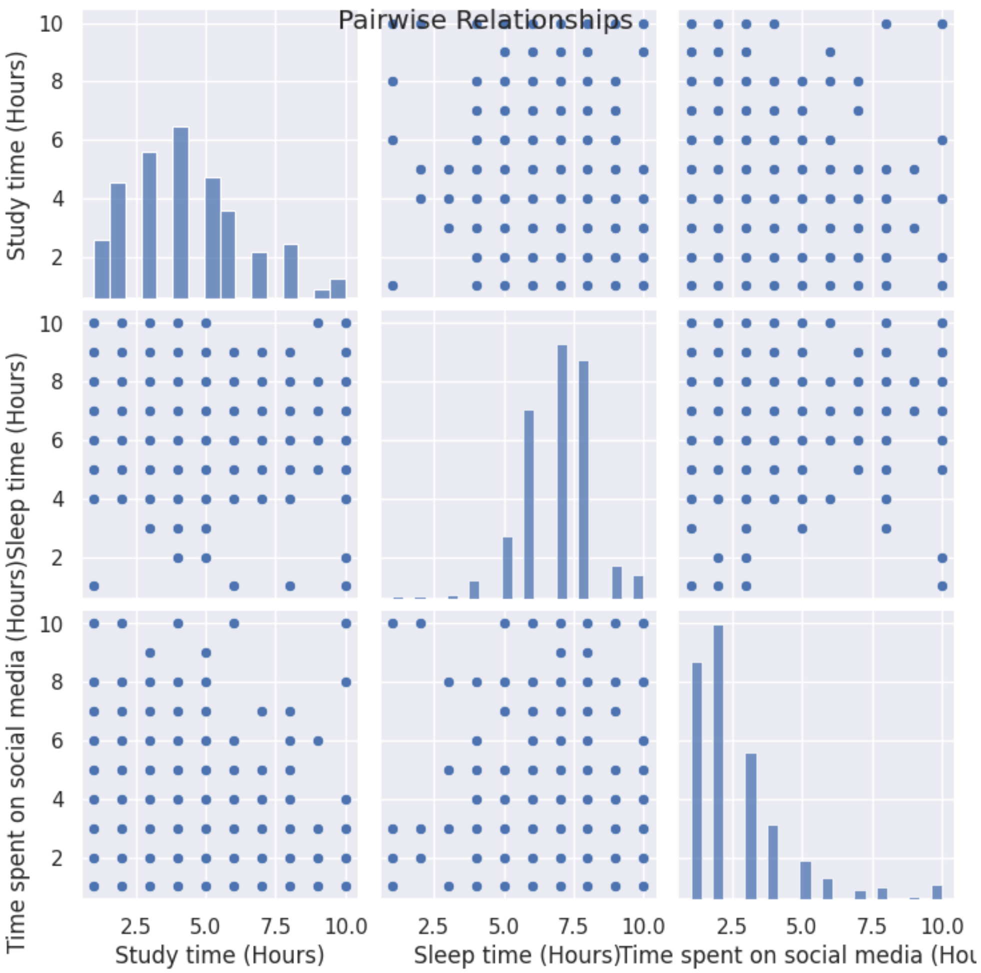
```
plt.figure(figsize=(8, 6))
sns.boxplot(data=df2, x="Gender", y="Study time (Hours)")
plt.title("Study Time by Gender")
plt.xlabel("Gender")
plt.ylabel("Study Time (Hours)")
plt.show()
```



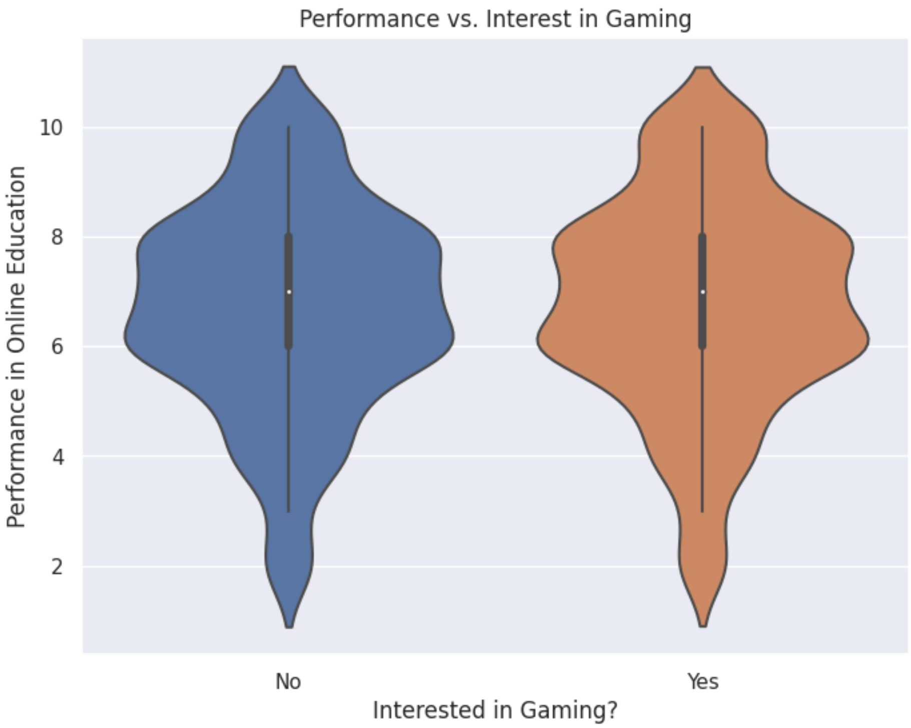
```
device_gender_counts = df2.groupby(['Device type used to attend classes', 'Gender']).size().unstack()
device_gender_counts.plot(kind='bar', stacked=True, figsize=(10, 6))
plt.title("Device Type by Gender")
plt.xlabel("Device Type")
plt.ylabel("Count")
plt.xticks(rotation=45)
plt.legend(title='Gender')
plt.show()
```



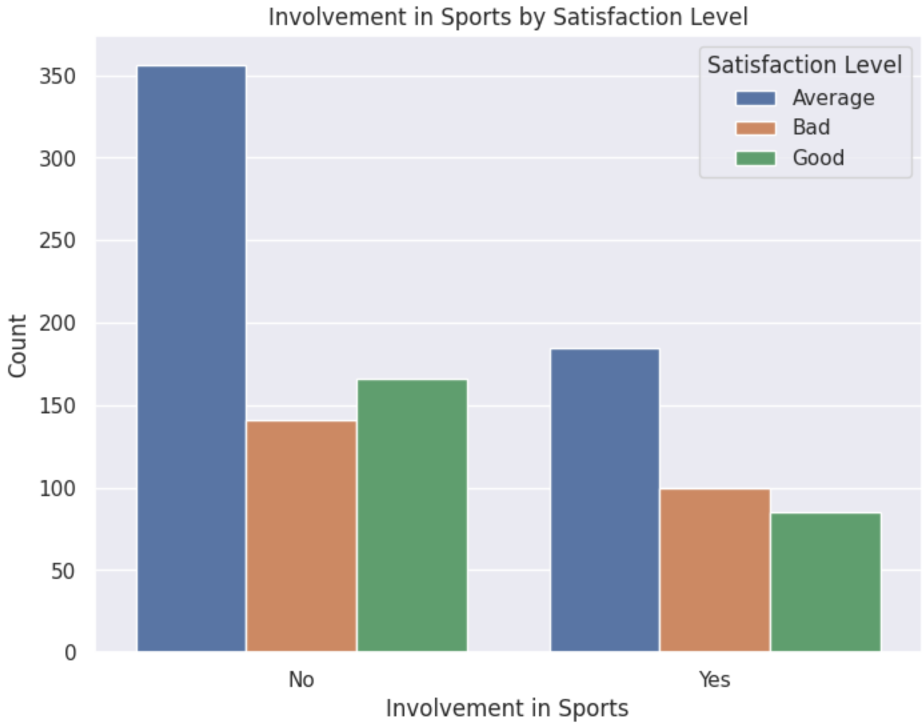
```
sns.pairplot(df2[[ 'Study time (Hours)', 'Sleep time (Hours)', 'Time spent on social media (Hours)']])
plt.suptitle("Pairwise Relationships")
plt.show()
```



```
plt.figure(figsize=(8, 6))
sns.violinplot(data=df2, x="Interested in Gaming?", y="Performance in online")
plt.title("Performance vs. Interest in Gaming")
plt.xlabel("Interested in Gaming?")
plt.ylabel("Performance in Online Education")
plt.show()
```

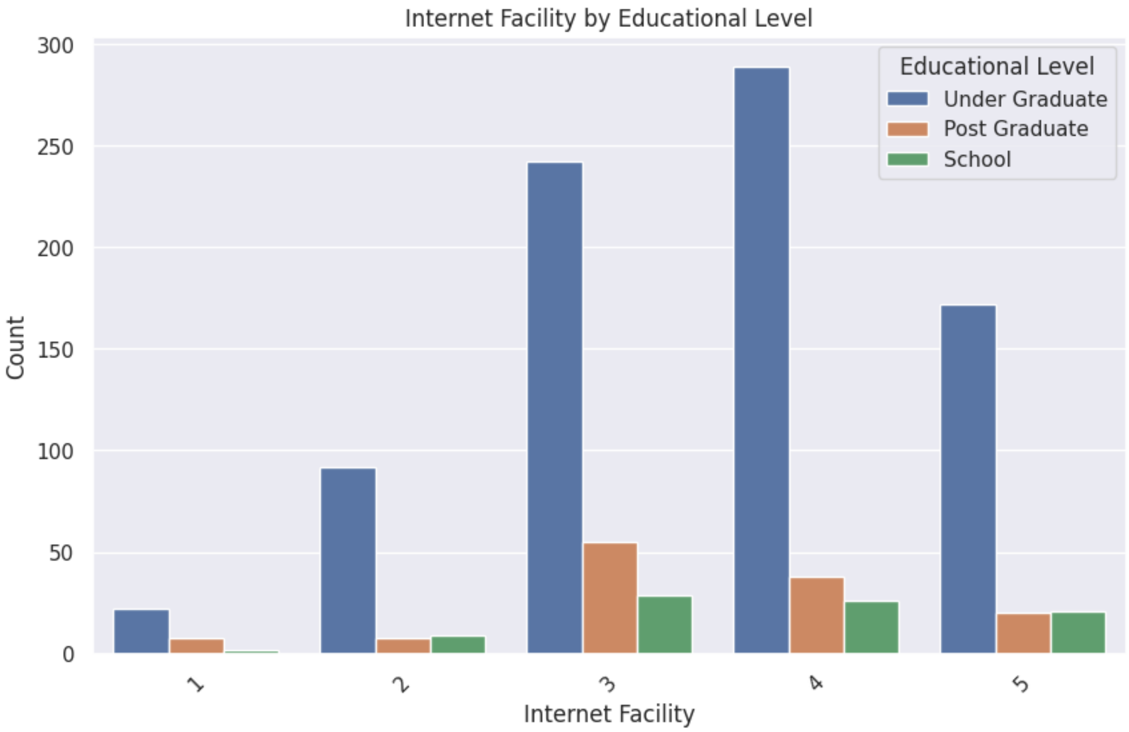


```
plt.figure(figsize=(8, 6))
sns.countplot(data=df2, x="Are you involved in any sports?", hue="Your level of satisfaction in Online Education")
plt.title("Involvement in Sports by Satisfaction Level")
plt.xlabel("Involvement in Sports")
plt.ylabel("Count")
plt.legend(title="Satisfaction Level")
plt.show()
```

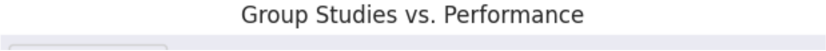


```
plt.figure(figsize=(10, 6))
sns.countplot(data=df2, x="Internet facility in your locality", hue="Level of Education")
```

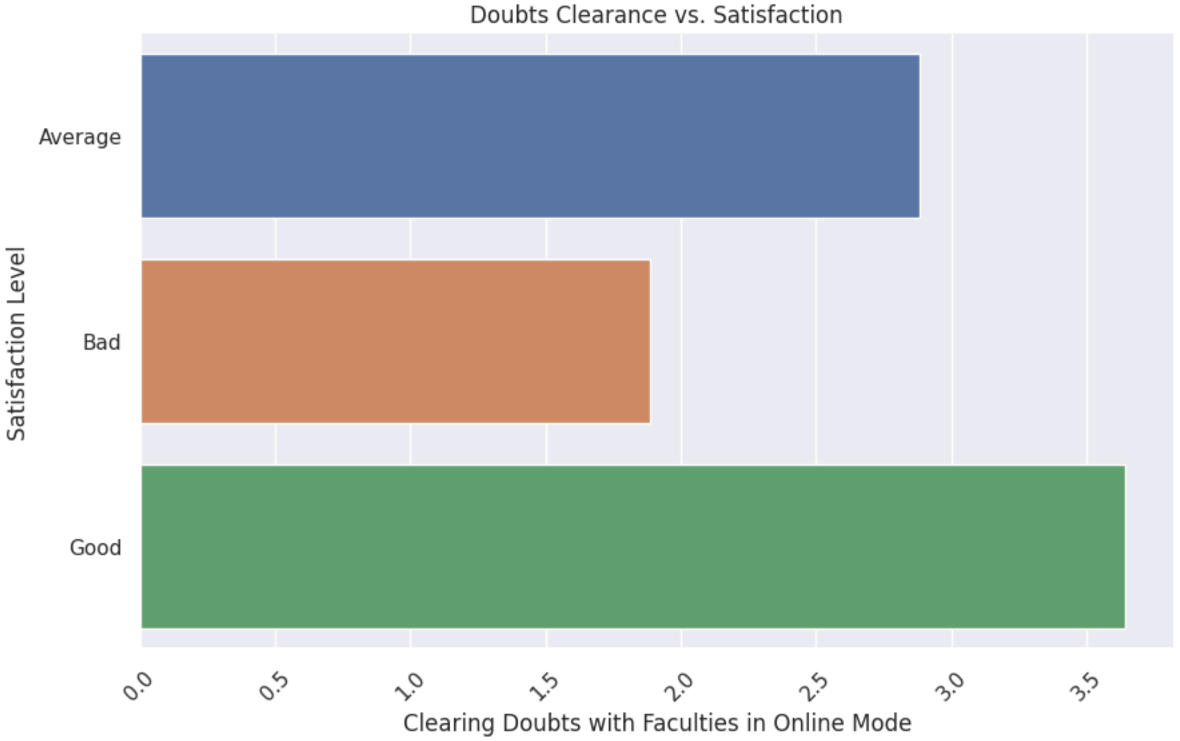
```
plt.title("Internet Facility by Educational Level")
plt.xlabel("Internet Facility")
plt.ylabel("Count")
plt.legend(title="Educational Level")
plt.xticks(rotation=45)
plt.show()
```



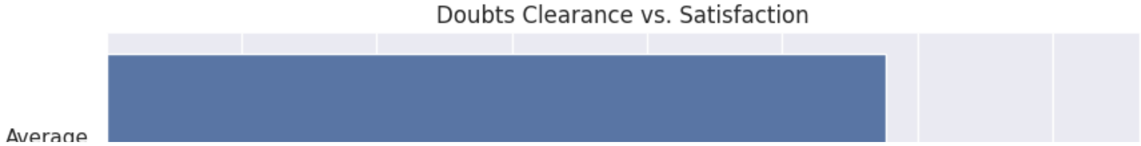
```
plt.figure(figsize=(8, 6))
sns.countplot(data=df2, x="Engaged in group studies?", hue="Performance in online")
plt.title("Group Studies vs. Performance")
plt.xlabel("Engaged in Group Studies")
plt.ylabel("Count")
plt.legend(title="Performance")
plt.xticks(rotation=45)
plt.show()
```



```
plt.figure(figsize=(10, 6))
sns.barplot(data=df2, x="Clearing doubts with faculties in online mode", y="Your level of satisfaction in Online Education", ci=None)
plt.title("Doubts Clearance vs. Satisfaction")
plt.xlabel("Clearing Doubts with Faculties in Online Mode")
plt.ylabel("Satisfaction Level")
plt.xticks(rotation=45)
plt.show()
```



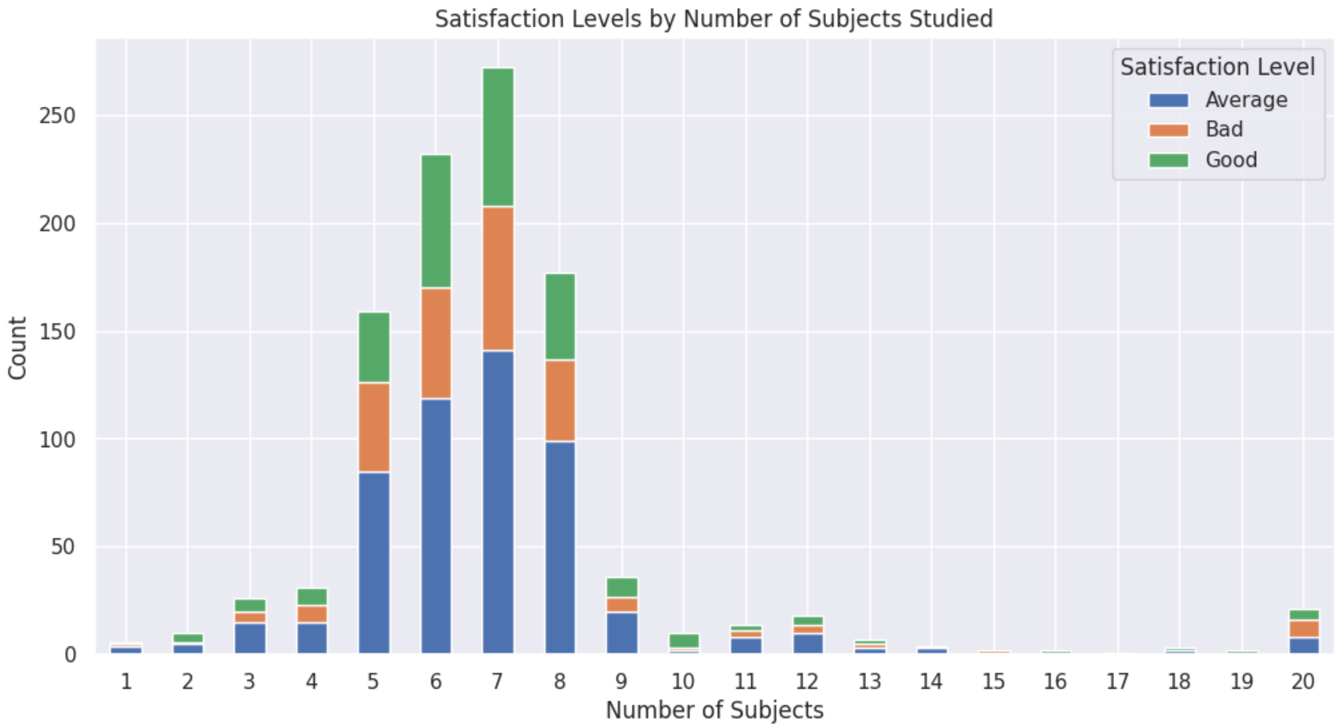
```
plt.figure(figsize=(10, 6))
sns.barplot(data=df2, x="Clearing doubts with faculties in online mode", y="Your level of satisfaction in Online Education", ci=None)
plt.title("Doubts Clearance vs. Satisfaction")
plt.xlabel("Clearing Doubts with Faculties in Online Mode")
plt.ylabel("Satisfaction Level")
plt.xticks(rotation=45)
plt.show()
```



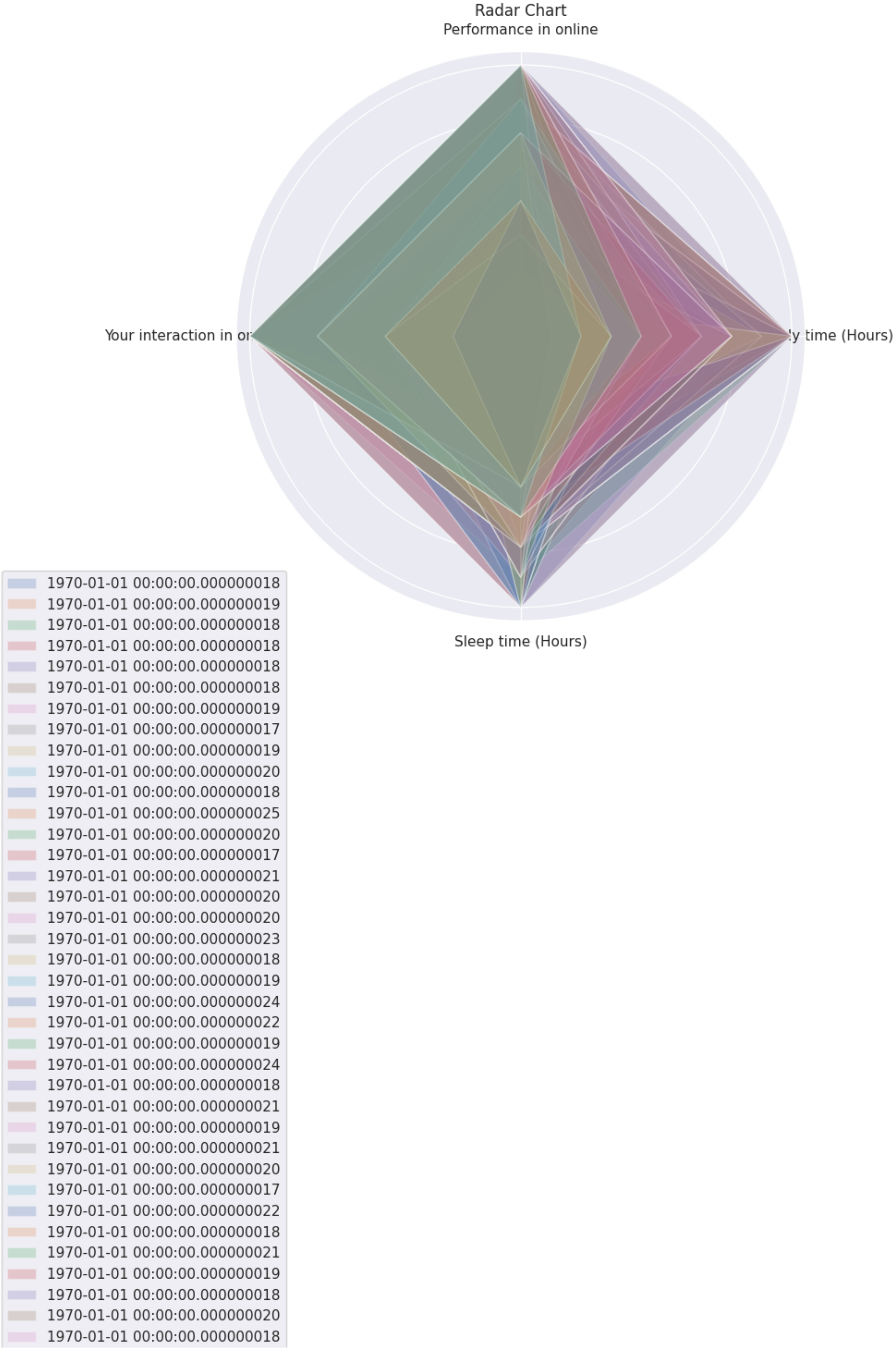
```
import pandas as pd
from sklearn.tree import DecisionTreeClassifier
from sklearn.model_selection import train_test_split
from sklearn.metrics import accuracy_score
from sklearn.tree import export_text

# Load your dataset
# Assuming you have a DataFrame named 'df2'

# Select the features and target variable
features = df2.drop("Your level of satisfaction in Online Education", axis=1)
target = df2["Your level of satisfaction in Online Education"]

# Convert categorical variables to numerical using one-hot encoding
features_encoded = pd.get_dummies(features)

# Split the dataset into training and testing sets
X_train, X_test, y_train, y_test = train_test_split(features_encoded, target, test_size=0.2, random_state=42)

# Create a decision tree classifier
clf = DecisionTreeClassifier()

# Fit the classifier to the training data
clf.fit(X_train, y_train)

# Make predictions on the test data
y_pred = clf.predict(X_test)

# Evaluate the model
accuracy = accuracy_score(y_test, y_pred)
print(f"Accuracy: {accuracy}")

# Print the decision tree rules
tree_rules = export_text(clf, feature_names=list(features_encoded.columns))
print("Decision Tree Rules:")
print(tree_rules)
```

```
Accuracy: 0.5700483091787439
Decision Tree Rules:
|--- Clearing doubts with faculties in online mode <= 2.50
|   |--- Performance in online <= 2.50
|   |   |--- Sleep time (Hours) <= 3.00
|   |   |   |--- class: Good
|   |   |--- Sleep time (Hours) >  3.00
|   |   |   |--- Level of Education_Post Graduate <= 0.50
|   |   |   |   |--- class: Bad
|   |   |   |--- Level of Education_Post Graduate >  0.50
|   |   |   |   |--- class: Good
|   |--- Performance in online >  2.50
|   |   |--- Device type used to attend classes_Laptop <= 0.50
|   |   |   |--- Clearing doubts with faculties in online mode <= 1.50
|   |   |   |   |--- Home Location_Urban <= 0.50
|   |   |   |   |   |--- Level of Education_Post Graduate <= 0.50
|   |   |   |   |   |   |--- class: Average
|   |   |   |   |   |--- Level of Education_Post Graduate >  0.50
|   |   |   |   |   |   |--- class: Bad
|   |   |   |   |--- Home Location_Urban >  0.50
|   |   |   |   |   |--- Family size <= 6.00
|   |   |   |   |   |   |--- Average marks scored before pandemic in traditional classroom_71-80 <= 0.50
|   |   |   |   |   |   |   |--- Average marks scored before pandemic in traditional classroom_61-70 <= 0.50
|   |   |   |   |   |   |   |   |--- Device type used to attend classes_Mobile <= 0.50
|   |   |   |   |   |   |   |   |   |--- Gender_Male <= 0.50
|   |   |   |   |   |   |   |   |   |   |--- class: Average
|   |   |   |   |   |   |   |   |   |--- Gender_Male >  0.50
|   |   |   |   |   |   |   |   |   |   |--- class: Bad
|   |   |   |   |   |   |   |   |--- Device type used to attend classes_Mobile >  0.50
|   |   |   |   |   |   |   |   |   |--- class: Bad
|   |   |   |   |   |   |   |--- Average marks scored before pandemic in traditional classroom_61-70 >  0.50
|   |   |   |   |   |   |   |   |--- class: Average
|   |   |   |   |   |   |--- Average marks scored before pandemic in traditional classroom_71-80 >  0.50
|   |   |   |   |   |   |   |--- Your interaction in online mode <= 1.50
|   |   |   |   |   |   |   |   |--- class: Bad
|   |   |   |   |   |   |   |--- Your interaction in online mode >  1.50
|   |   |   |   |   |   |   |   |--- class: Average
|   |   |   |   |   |--- Family size >  6.00
|   |   |   |   |   |   |--- Interested in Gaming?_No <= 0.50
|   |   |   |   |   |   |   |--- class: Average
|   |   |   |   |   |   |--- Interested in Gaming?_No >  0.50
|   |   |   |   |   |   |   |--- class: Good
|   |   |   |--- Clearing doubts with faculties in online mode >  1.50
|   |   |   |   |--- Time spent on social media (Hours) <= 2.50
|   |   |   |   |   |--- Economic status_Middle Class <= 0.50
|   |   |   |   |   |   |--- Sleep time (Hours) <= 6.50
|   |   |   |   |   |   |   |--- Home Location_Urban <= 0.50
|   |   |   |   |   |   |   |   |--- class: Good
|   |   |   |   |   |   |   |--- Home Location_Urban >  0.50
|   |   |   |   |   |   |   |   |--- class: Bad
|   |   |   |   |   |   |--- Sleep time (Hours) >  6.50
|   |   |   |   |   |   |   |--- class: Average
|   |   |   |   |   |--- Economic status_Middle Class >  0.50
|   |   |   |   |   |   |--- Family size <= 5.50
|   |   |   |   |   |   |   |--- class: Average
|   |   |   |   |   |   |--- Family size >  5.50
|   |   |   |   |   |   |   |--- Average marks scored before pandemic in traditional classroom_81-90 <= 0.50
|   |   |   |   |   |   |   |   |--- class: Average
```

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

# Load your dataset
# Assuming you have a DataFrame named 'df2'

# Create a crosstab to count satisfaction levels by the number of subjects
cross_tab = pd.crosstab(df2['Number of Subjects'], df2['Your level of satisfaction in Online Education'])

# Plot a stacked bar chart
cross_tab.plot(kind='bar', stacked=True, figsize=(12, 6))
plt.title("Satisfaction Levels by Number of Subjects Studied")
plt.xlabel("Number of Subjects")
plt.ylabel("Count")
plt.legend(title="Satisfaction Level")
plt.xticks(rotation=0)
plt.show()
```



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

# Load your dataset
# Assuming you have a DataFrame named 'df2'

# Select relevant attributes for the radar chart
attributes = ["Study time (Hours)", "Performance in online", "Your interaction in online mode", "Sleep time (Hours)"]
data = df2[attributes]

# Normalize the data (optional but recommended)
min_val = data.min()
max_val = data.max()
data = (data - min_val) / (max_val - min_val)

# Create a radar chart
fig, ax = plt.subplots(subplot_kw={'polar': True}, figsize=(8, 8))

# Number of attributes
categories = list(data.columns)
N = len(categories)

# Calculate angle values
angles = [n / float(N) * 2 * 3.14159265359 for n in range(N)]
angles += angles[:1]

# Plot the data
for i, row in data.iterrows():
    values = row.values.flatten().tolist()
    values += values[:1]
    ax.fill(angles, values, alpha=0.25, label=i)

# Set labels
ax.set_xticks(angles[:-1])
ax.set_xticklabels(categories)
ax.set_yticklabels([])

# Add a legend
ax.legend(loc='upper right', bbox_to_anchor=(0.1, 0.1))

# Show the radar chart
plt.title("Radar Chart")
plt.show()
```


Radar Chart
Performance in online
ly time (Hours)
Your interaction in or
Sleep time (Hours)
1970-01-01 00:00:00.000000018
1970-01-01 00:00:00.000000019
1970-01-01 00:00:00.000000018
1970-01-01 00:00:00.000000018
1970-01-01 00:00:00.000000018
1970-01-01 00:00:00.000000018
1970-01-01 00:00:00.000000019
1970-01-01 00:00:00.000000017
1970-01-01 00:00:00.000000019
1970-01-01 00:00:00.000000020
1970-01-01 00:00:00.000000018
1970-01-01 00:00:00.000000025
1970-01-01 00:00:00.000000020
1970-01-01 00:00:00.000000017
1970-01-01 00:00:00.000000021
1970-01-01 00:00:00.000000020
1970-01-01 00:00:00.000000020
1970-01-01 00:00:00.000000023
1970-01-01 00:00:00.000000018
1970-01-01 00:00:00.000000019
1970-01-01 00:00:00.000000024
1970-01-01 00:00:00.000000022
1970-01-01 00:00:00.000000019
1970-01-01 00:00:00.000000024
1970-01-01 00:00:00.000000018
1970-01-01 00:00:00.000000021
1970-01-01 00:00:00.000000019
1970-01-01 00:00:00.000000021
1970-01-01 00:00:00.000000020
1970-01-01 00:00:00.000000017
1970-01-01 00:00:00.000000022
1970-01-01 00:00:00.000000018
1970-01-01 00:00:00.000000021
1970-01-01 00:00:00.000000019
1970-01-01 00:00:00.000000018
1970-01-01 00:00:00.000000020
1970-01-01 00:00:00.000000018