

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

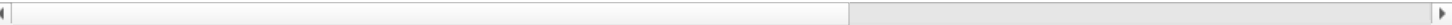
```
In [90]: #Music & Mental Health Survey Results
data=pd.read_csv('mxmh_survey_results.csv')
```

```
In [91]: data
```

Out[91]:

| | Timestamp | Age | Primary streaming service | Hours per day | While working | Instrumentalist | Composer | Fav genre | Exploratory | Foreign languages | ... | Frequency [R&B] | Frequency [Rap] | F |
|-----|---------------------|------|---------------------------|---------------|---------------|-----------------|----------|------------------|-------------|-------------------|-----|-----------------|-----------------|---|
| 0 | 8/27/2022 19:29:02 | 18.0 | Spotify | 3.0 | Yes | Yes | Yes | Latin | Yes | Yes | ... | Sometimes | Very frequently | |
| 1 | 8/27/2022 19:57:31 | 63.0 | Pandora | 1.5 | Yes | No | No | Rock | Yes | No | ... | Sometimes | Rarely | |
| 2 | 8/27/2022 21:28:18 | 18.0 | Spotify | 4.0 | No | No | No | Video game music | No | Yes | ... | Never | Rarely | |
| 3 | 8/27/2022 21:40:40 | 61.0 | YouTube Music | 2.5 | Yes | No | Yes | Jazz | Yes | Yes | ... | Sometimes | Never | |
| 4 | 8/27/2022 21:54:47 | 18.0 | Spotify | 4.0 | Yes | No | No | R&B | Yes | No | ... | Very frequently | Very frequently | |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 731 | 10/30/2022 14:37:28 | 17.0 | Spotify | 2.0 | Yes | Yes | No | Rock | Yes | Yes | ... | Never | Rarely | |
| 732 | 11/1/2022 22:26:42 | 18.0 | Spotify | 1.0 | Yes | Yes | No | Pop | Yes | Yes | ... | Never | Never | S |
| 733 | 11/3/2022 23:24:38 | 19.0 | Other streaming service | 6.0 | Yes | No | Yes | Rap | Yes | No | ... | Sometimes | Sometimes | |
| 734 | 11/4/2022 17:31:47 | 19.0 | Spotify | 5.0 | Yes | Yes | No | Classical | No | No | ... | Never | Never | |
| 735 | 11/9/2022 1:55:20 | 29.0 | YouTube Music | 2.0 | Yes | No | No | Hip hop | Yes | Yes | ... | Very frequently | Very frequently | |

736 rows × 33 columns

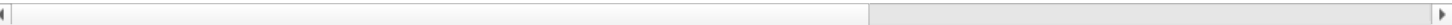


```
In [92]: data.head()
```

Out[92]:

| | Timestamp | Age | Primary streaming service | Hours per day | While working | Instrumentalist | Composer | Fav genre | Exploratory | Foreign languages | ... | Frequency [R&B] | Frequency [Rap] | Freque [R |
|---|--------------------|------|---------------------------|---------------|---------------|-----------------|----------|------------------|-------------|-------------------|-----|-----------------|-----------------|-----------|
| 0 | 8/27/2022 19:29:02 | 18.0 | Spotify | 3.0 | Yes | Yes | Yes | Latin | Yes | Yes | ... | Sometimes | Very frequently | N |
| 1 | 8/27/2022 19:57:31 | 63.0 | Pandora | 1.5 | Yes | No | No | Rock | Yes | No | ... | Sometimes | Rarely | frequ |
| 2 | 8/27/2022 21:28:18 | 18.0 | Spotify | 4.0 | No | No | No | Video game music | No | Yes | ... | Never | Rarely | R |
| 3 | 8/27/2022 21:40:40 | 61.0 | YouTube Music | 2.5 | Yes | No | Yes | Jazz | Yes | Yes | ... | Sometimes | Never | N |
| 4 | 8/27/2022 21:54:47 | 18.0 | Spotify | 4.0 | Yes | No | No | R&B | Yes | No | ... | Very frequently | Very frequently | N |

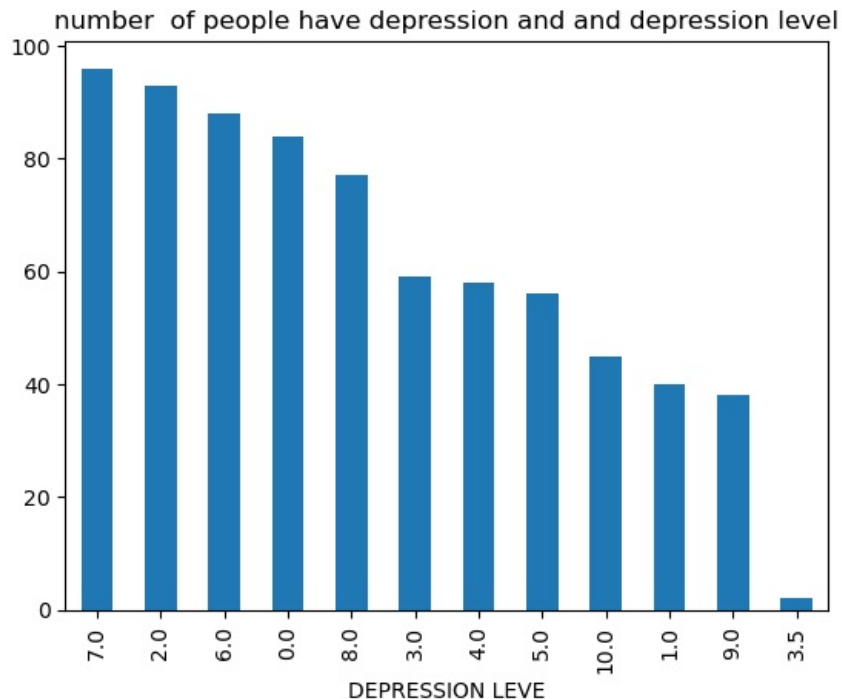
5 rows × 33 columns



```
In [93]: #information about the dataset
data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 736 entries, 0 to 735
Data columns (total 33 columns):
#   Column                                Non-Null Count  Dtype
---  -
0   Timestamp                             736 non-null    object
1   Age                                    735 non-null    float64
2   Primary streaming service             735 non-null    object
3   Hours per day                         736 non-null    float64
4   While working                         733 non-null    object
5   Instrumentalist                       732 non-null    object
6   Composer                             735 non-null    object
7   Fav genre                             736 non-null    object
8   Exploratory                           736 non-null    object
9   Foreign languages                     732 non-null    object
10  BPM                                    629 non-null    float64
11  Frequency [Classical]                 736 non-null    object
12  Frequency [Country]                   736 non-null    object
13  Frequency [EDM]                       736 non-null    object
14  Frequency [Folk]                      736 non-null    object
15  Frequency [Gospel]                   736 non-null    object
16  Frequency [Hip hop]                   736 non-null    object
17  Frequency [Jazz]                      736 non-null    object
18  Frequency [K pop]                     736 non-null    object
19  Frequency [Latin]                     736 non-null    object
20  Frequency [Lofi]                      736 non-null    object
21  Frequency [Metal]                     736 non-null    object
22  Frequency [Pop]                       736 non-null    object
23  Frequency [R&B]                       736 non-null    object
24  Frequency [Rap]                       736 non-null    object
25  Frequency [Rock]                      736 non-null    object
26  Frequency [Video game music]          736 non-null    object
27  Anxiety                               736 non-null    float64
28  Depression                             736 non-null    float64
29  Insomnia                              736 non-null    float64
30  OCD                                    736 non-null    float64
31  Music effects                         728 non-null    object
32  Permissions                           736 non-null    object
dtypes: float64(7), object(26)
memory usage: 189.9+ KB
```

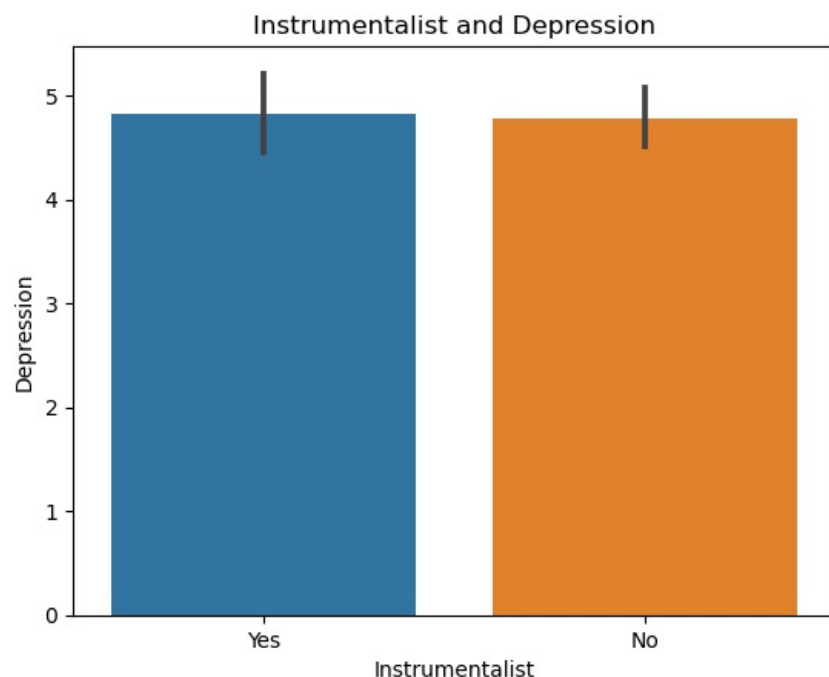
```
In [100.. #number of people have depression and its level
plt.title("number of people have depression and and depression level")
plt.xlabel("DEPRESSION LEVE")
data["Depression"].value_counts().plot(kind="bar");
```



```
In [102.. """if age is increase and also hours of listen a music is decreased.
"""
data.groupby("Age")["Hours per day"].mean()
```

```
Out[102]: Age
10.0      2.000000
12.0      1.500000
13.0      3.687500
14.0      4.647059
15.0      3.857143
...
72.0      6.000000
73.0      3.000000
74.0      1.000000
80.0      3.000000
89.0     24.000000
Name: Hours per day, Length: 61, dtype: float64
```

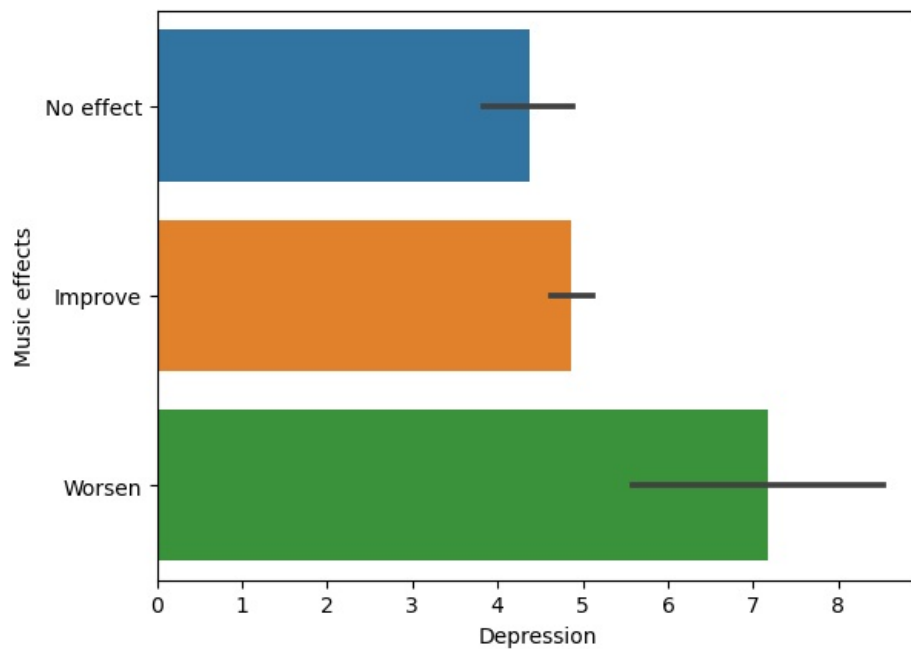
```
In [105]: plt.title("Instrumentalist and Depression")
sns.barplot(x=data["Instrumentalist"],y=data["Depression"]);
"Instruments has no changes makeing in depression .so instruments and depression has no co-realtions"
```



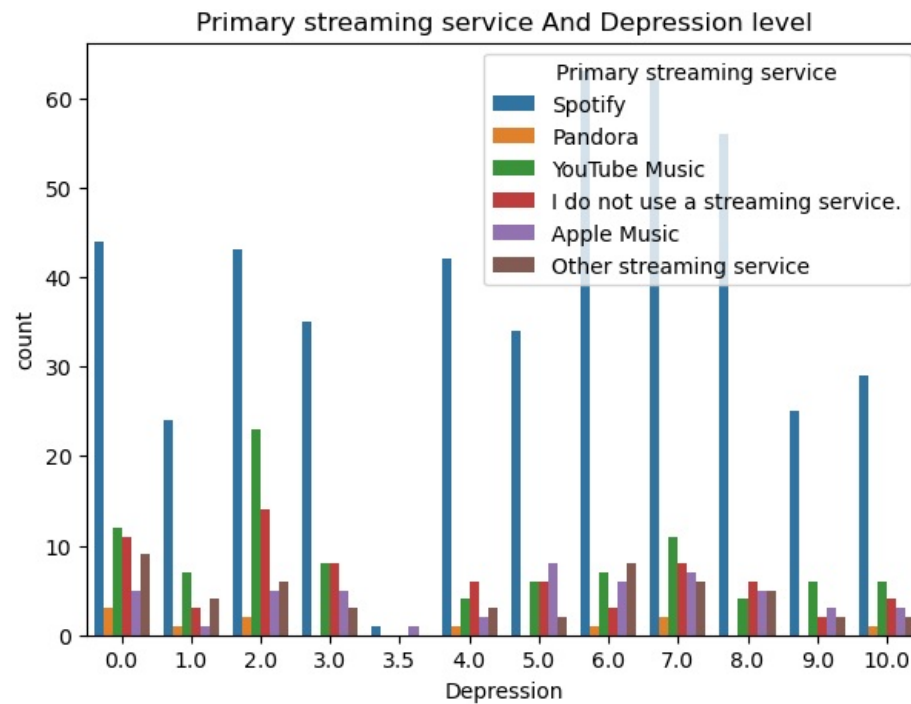
```
In [98]: data[data["Instrumentalist"]=="Yes"]["Depression"]
```

```
Out[98]: 0      0.0
5      8.0
6      8.0
10     7.0
14     4.0
...
721    8.0
728    3.0
731    6.0
732    2.0
734    3.0
Name: Depression, Length: 235, dtype: float64
```

```
In [79]: sns.barplot(x=data["Depression"],y=data["Music effects"]);
""""Music effects has to be change the depression levels its have corelation"""
```



```
In [66]: plt.figure(figsize=(7,5))
plt.title("Primary streaming service And Depression level")
sns.countplot(x="Depression",hue="Primary streaming service",data=data);
"""people have any depression time they are mostly listening music in spotify even though non depression time al
```



```
In [ ]: #conclusion :
        """Music has to be change mental health and when they are in depression they listen music..."""
```

```
In [ ]:
```