

# **REPORT ON MINI PROJECT**

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**PROJECT NAME** : Mental Health in Social Medial data

**PROJECT DOMAIN** : Social Media

**SUBMISSION DATE** : 10.12.2025

**MENTOR NAME** : M. Kumaran

**RAW DATASET LINK** : [Social Media Mental Health Indicators Dataset](#)

**CLEANED DATASET LINK:** [Deepthi25B/Social-media-mini-project](#)

# **MENTAL HEALTH SOCIAL MEDIA ANALYSIS PROJECT REPORT**

## **INTRODUCTION:**

Social media has become an integral part of everyday life, especially among young adults. While it provides opportunities for communication, entertainment, and information sharing, it can also influence mental health in significant ways. Understanding how digital behavior such as screen time, social media usage, online interactions, and engagement patterns affects mental well-being is crucial.

This dataset captures key variables including daily screen time, social media usage hours, negative & positive interactions, sleep duration, physical activity, anxiety level, stress level, mood level, and mental state. By analyzing these factors, the project aims to uncover meaningful insights into how social media behaviors correlate with mental health indicators.

## **PURPOSE OF THE PROJECT:**

The primary purpose of this project is to analyze the relationship between social media usage patterns and mental health outcomes. With growing concerns about stress, anxiety, poor sleep, and reduced physical activity among frequent social media users, this study aims to:

- Identify patterns linking screen time and mental health issues
- Understand how interaction quality (positive vs negative) impacts emotional well-being
- Explore how lifestyle factors (sleep, activity level) correlate with anxiety, stress, and mood

- Provide data-driven insights that can support mental health awareness and digital wellness practices

This project serves as a foundation for detecting early signs of deteriorating mental health and promoting healthier social media usage habits.

## **AIMS:**

The project aims to produce:

1. A clean and well-structured dataset
2. Descriptive analytics showing trends and distributions
3. Correlations between digital behavior and mental well-being
4. Actionable insights that can help users improve their digital habits
5. Visual dashboards that explain patterns clearly

Ultimately, the goal is to understand how social media impacts mental health and support recommendations for digital wellness.

## **OBJECTIVES OF THE PROJECT:**

- To clean and prepare the mental health social media dataset.
- To Analyze how variables such as **daily screen time, social media hours, and interaction quality** (positive/negative) influence anxiety, stress, and mood levels.
- To build interactive visualizations and **KPIs** using Power **BI**.
- To identify the high, medium and low **stress category**.

- Examine the role of **sleep duration** and **physical activity** in balancing the negative effects of heavy social media use.
- To generate insights using **charts, maps, and filters**.

## **DATA DESCRIPTION:**

The dataset contains Mental health social media parameters:

Person name, Age, Date, Gender, Platform, Daily screen time hours, social media time hours, Screen time activity, Negative and positive interaction count, sleep hours and anxiety and mood level.

The dataset was initially unclean and contained duplicated records, inconsistent date formats and missing values.

## **PROBLEM STATEMENT:**

The Mental health and social media dataset were messy and unstructured, making it difficult to analyze.

The challenge was to clean the data, remove inconsistencies, handle missing values, and convert it into a usable format for meaningful visual insights.

## **MISSION OF THE PROJECT:**

The mission of this project is to analyze and transform Mental health and social media dataset into meaningful insights, enabling better understanding **and promote digital well-being** by analyzing how social media usage patterns impact mental health.

Through data-driven insights, the project aims to **identify early signs of stress, anxiety, and poor emotional balance**, helping individuals develop healthier online behaviors.

# DATA CLEANING IN DATA SET

Convert given dataset into table

The entire dataset was first converted into a proper structured table/range. By selecting the range **ctrl+a** and click insert tab - select Table option.

**Raw dataset :**

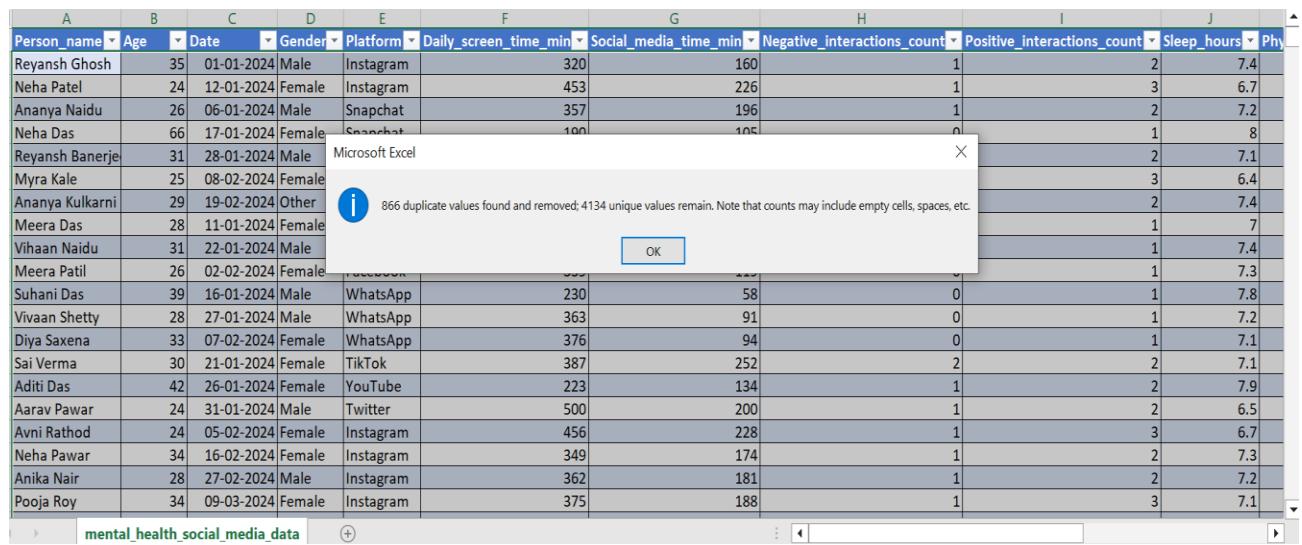
A1	Person_name	Age	Date	Gender	Platform	Daily_scre	Social_me	Negative_i	Positive_ir	Sleep_ho	Physical_a	Anxiety_le	Stress_lev	Mood_lev	Mental_state	P
1	Reyansh Ghosh	35	1/1/2024	Male	Instagram	5.33	2.67	1	2	7.4	28	2	7	6	Stressed	
2	Neha Patel	24	12-01-2024	Female	Instagram	7.55	3.77	1	3	6.7	15	3	8	5	Stressed	
3	Ananya Naidu	26	6/1/2024	Male	Snapchat	5.95	3.27	1	2	7.2	24	3	7	6	Stressed	
4	Neha Das	66	17-01-2022	Female	Snapchat	3.17	1.75	0	1	8	41	2	6	6	Stressed	
5	Reyansh B	31	28-01-2022	Male	Snapchat	6.38	3.52	1	2	7.1	22	3	7	6	Stressed	
6	Myra Kale	25	8/2/2024	Female	Snapchat	8.6	4.73	1	3	6.4	8	3	8	5	Stressed	
7	Ananya Kulkarni	29	19-02-2022	Prefer not to say	Snapchat	5.47	3	1	2	7.4	27	3	7	6	Stressed	
8	Meera Das	28	28-01-2022	Female	Facebook	6.57	2.3	1	1	7	21	2	7	6	Stressed	
9	Vihaan Naidu	31	22-01-2022	Male	Facebook	5.43	1.9	0	1	7.4	27	2	6	6	Stressed	
10	Meera Patil	26	2/2/2024	Female	Facebook	5.65	1.98	0	1	7.3	26	2	6	6	Stressed	
11	Suhani Das	39	16-01-2022	Male	WhatsApp	3.83	0.97	0	1	7.8	37	1	5	7	Healthy	
12	Vivaan Shetty	28	27-01-2022	Male	WhatsApp	6.05	1.52	0	1	7.2	24	2	6	6	Stressed	
13	Diya Saxena	33	7/2/2024	Female	WhatsApp	6.27	1.57	0	1	7.1	22	2	6	6	Stressed	
14	Sai Verma	30	21-01-2022	Female	TikTok	6.45	4.2	2	2	7.1	21	4	8	5	Stressed	
15	Aditi Das	42	26-01-2022	Female	YouTube	3.72	2.23	1	2	7.9	38	2	6	6	Stressed	
16	Aarav Pawar	24	31-01-2022	Male	Twitter	8.33	3.33	1	2	6.5	10	3	8	5	Stressed	
17	Avni Rathod	24	5/2/2024	Female	Instagram	7.6	3.8	1	3	6.7	14	3	8	5	Stressed	
18	Neha Pawar	34	16-02-2022	Female	Instagram	5.82	2.9	1	2	7.3	25	3	7	6	Stressed	
19	Anika Nair	28	27-02-2022	Male	Instagram	6.03	3.02	1	2	7.2	24	3	7	6	Stressed	
20	Pooja Roy	34	09-03-2024	Female	Instagram	3.75	1.88									

**After inserting table :**

Person_name	Age	Date	Gender	Platform	Daily_screen_time_min	Social_media_time_min	Negative_interactions_count	Positive_interactions_count	Sleep_hours	Physical_activity	Anxiety_level	Stress_level	Mood_level	Mental_state	Ph
Reyansh Ghosh	35	01-01-2024	Male	Instagram	320	160	1	2	7.4						
Neha Patel	24	12-01-2024	Female	Instagram	453	226	1	3							6.7
Ananya Naidu	26	06-01-2024	Male	Snapchat	357	196	1	2							7.2
Neha Das	66	17-01-2024	Female	Snapchat	190	105	0	1							8
Reyansh Banerjee	31	28-01-2024	Male	Snapchat	383	211	1	2							7.1
Myra Kale	25	08-02-2024	Female	Snapchat	516	284	1	3							6.4
Ananya Kulkarni	29	19-02-2024	Other	Snapchat	328	180	1	2							7.4
Meera Das	28	11-01-2024	Female	Facebook	394	138	1	1							7
Vihaan Naidu	31	22-01-2024	Male	Facebook	326	114	0	1							7.4
Meera Patil	26	02-02-2024	Female	Facebook	339	119	0	1							7.3
Suhani Das	39	16-01-2024	Male	WhatsApp	230	58	0	1							7.8
Vivaan Shetty	28	27-01-2024	Male	WhatsApp	363	91	0	1							7.2
Diya Saxena	33	07-02-2024	Female	WhatsApp	376	94	0	1							7.1
Sai Verma	30	21-01-2024	Female	TikTok	387	252	2	2							7.1
Aditi Das	42	26-01-2024	Female	YouTube	223	134	1	2							7.9
Aarav Pawar	24	31-01-2024	Male	Twitter	500	200	1	2							6.5
Avni Rathod	24	05-02-2024	Female	Instagram	456	228	1	3							6.7
Neha Pawar	34	16-02-2024	Female	Instagram	349	174	1	2							7.3
Anika Nair	28	27-02-2024	Male	Instagram	362	181	1	2							7.2
Pooja Roy	34	09-03-2024	Female	Instagram	375	188	1	3							7.1

## Removed duplicates:

- The dataset contained duplicate records based on key fields.
- Identified and removed duplicate entries using Excel's **Remove Duplicates** feature.
- In Data tab, clicked Removed duplicates by selecting Person name, 866 duplicate found and 4134 unique values remains.



A screenshot of a Microsoft Excel spreadsheet titled "mental\_health\_social\_media\_data". The spreadsheet contains 20 rows of data with columns labeled A through J. The data includes columns for Person\_name, Age, Date, Gender, Platform, Daily\_screen\_time\_min, Social\_media\_time\_min, Negative\_interactions\_count, Positive\_interactions\_count, Sleep\_hours, and Phy. A modal dialog box is overlaid on the spreadsheet, displaying the message: "Microsoft Excel" (title bar), "866 duplicate values found and removed; 4134 unique values remain. Note that counts may include empty cells, spaces, etc." (body), and an "OK" button (button). The dialog has a white background and a thin gray border.

Person_name	Age	Date	Gender	Platform	Daily_screen_time_min	Social_media_time_min	Negative_interactions_count	Positive_interactions_count	Sleep_hours	Phy
Reyansh Ghosh	35	01-01-2024	Male	Instagram	320	160	1	2	7.4	
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Neha Das	66	17-01-2024	Female	Snapchat	100	105	0	1	8	
Reyansh Banerje	31	28-01-2024	Male	Microsoft Excel						
Myra Kale	25	08-02-2024	Female							
Ananya Kulkarni	29	19-02-2024	Other							
Meera Das	28	11-01-2024	Female							
Vihaan Naidu	31	22-01-2024	Male							
Meera Patil	26	02-02-2024	Female							
Suhani Das	39	16-01-2024	Male	WhatsApp	230	58	0	1	7.8	
Vivaan Shetty	28	27-01-2024	Male	WhatsApp	363	91	0	1	7.2	
Diya Saxena	33	07-02-2024	Female	WhatsApp	376	94	0	1	7.1	
Sai Verma	30	21-01-2024	Female	TikTok	387	252	2	2	7.1	
Aditi Das	42	26-01-2024	Female	YouTube	223	134	1	2	7.9	
Aarav Pawar	24	31-01-2024	Male	Twitter	500	200	1	2	6.5	
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Pooja Roy	34	09-03-2024	Female	Instagram	375	188	1	3	7.1	

## Inconsistent Data column:

The Date column contained inconsistent date formats, using both Slash and Hyphen format. Standardized all date entries by converting **slashes (/) to hyphens (-)**.

Original column	Standardized column																																											
<table border="1"> <thead> <tr> <th>C</th></tr> </thead> <tbody> <tr><td>Date</td></tr> <tr><td>1/1/2024</td></tr> <tr><td>12/1/2024</td></tr> <tr><td>6/1/2024</td></tr> <tr><td>17-01-2024</td></tr> <tr><td>28-01-2024</td></tr> <tr><td>8/2/2024</td></tr> <tr><td>19-02-2024</td></tr> <tr><td>11/1/2024</td></tr> <tr><td>22-01-2024</td></tr> <tr><td>2/2/2024</td></tr> <tr><td>16-01-2024</td></tr> <tr><td>27-01-2024</td></tr> <tr><td>7/2/2024</td></tr> <tr><td>21-01-2024</td></tr> <tr><td>26-01-2024</td></tr> <tr><td>31-01-2024</td></tr> <tr><td>5/2/2024</td></tr> <tr><td>16-02-2024</td></tr> <tr><td>27-02-2024</td></tr> <tr><td>9/3/2024</td></tr> </tbody> </table>	C	Date	1/1/2024	12/1/2024	6/1/2024	17-01-2024	28-01-2024	8/2/2024	19-02-2024	11/1/2024	22-01-2024	2/2/2024	16-01-2024	27-01-2024	7/2/2024	21-01-2024	26-01-2024	31-01-2024	5/2/2024	16-02-2024	27-02-2024	9/3/2024	<table border="1"> <thead> <tr> <th>Date</th></tr> </thead> <tbody> <tr><td>01-01-2024</td></tr> <tr><td>12-01-2024</td></tr> <tr><td>06-01-2024</td></tr> <tr><td>17-01-2024</td></tr> <tr><td>28-01-2024</td></tr> <tr><td>08-02-2024</td></tr> <tr><td>19-02-2024</td></tr> <tr><td>11-01-2024</td></tr> <tr><td>22-01-2024</td></tr> <tr><td>02-02-2024</td></tr> <tr><td>16-01-2024</td></tr> <tr><td>27-01-2024</td></tr> <tr><td>07-02-2024</td></tr> <tr><td>21-01-2024</td></tr> <tr><td>26-01-2024</td></tr> <tr><td>31-01-2024</td></tr> <tr><td>05-02-2024</td></tr> <tr><td>16-02-2024</td></tr> <tr><td>27-02-2024</td></tr> <tr><td>09-03-2024</td></tr> </tbody> </table>	Date	01-01-2024	12-01-2024	06-01-2024	17-01-2024	28-01-2024	08-02-2024	19-02-2024	11-01-2024	22-01-2024	02-02-2024	16-01-2024	27-01-2024	07-02-2024	21-01-2024	26-01-2024	31-01-2024	05-02-2024	16-02-2024	27-02-2024	09-03-2024
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### Age Column:

#### Problem identified:

The dataset contained only raw age values, which made it difficult to analyze patterns between **children vs adults**.

#### Action Taken:

Created a new Age Category column by classifying users based on their age. Used a simple rule **Child: Age < 18 and Adult: Age ≥ 18**.

#### Steps followed:

- Identify the Age Column
- Create a New Column Named Age Category.

**Formula used :**

Age category =IF(B3<18,"Child","Adult")

Original Value	Standardized value
35	Adult
24	Adult
26	Adult
66	Adult
31	Adult
25	Adult
29	Adult
28	Adult
31	Adult
26	Adult
39	Adult
28	Adult
33	Adult
30	Adult
42	Adult
24	Adult
24	Adult
34	Adult
28	Adult
34	Adult
22	Adult

**Geder column:**

**Problem identified:**

The Gender column contained three values: Male, Female, and Other. The label "Other" was not appropriate for reporting and could be considered inconsistent or unclear.

## Action Taken:

- Replaced the value "Other" with the more appropriate and inclusive label "Prefer Not to Say".
- Ensured the Gender column now contains only:
  - Male
  - Female
  - Prefer Not to Say

## Steps followed:

Reviewed the Gender column and found the entry "Other" and replaced by **Home → Find & Select → Replace**.

Original Value	Standardized value
Gender	Gender
Male	Male
Female	Female
Male	Male
Female	Female
Male	Male
Female	Female
Other	Prefer not to say
Female	Female
Male	Male
Female	Female
Male	Male
Male	Male
Female	Female
Female	Female
Female	Female
Male	Male
Female	Female
Female	Female
Male	Male
Female	Female
Female	Female

## **Daily screen time and social media screen time :**

### **Problem identified :**

The dataset contained Daily Screen Time and Social Media Screen Time in minutes. Some values were inconsistent or required transformation and minutes > 60 needed to converted to proper hour format.

### **Action Taken:**

Converted both Daily Screen Time (mins) and Social Media Screen Time (mins) into Hours using Excel formulas.

### **Steps followed:**

Using two column I have created new column Daily screen time hours and Social media time hours.

Original value	Standardized value
Daily_screen_time_min ▾	Daily_screen_time_hours ▾
320	5.33
453	7.55
357	5.95
190	3.17
383	6.38
516	8.60
328	5.47
394	6.57
326	5.43
339	5.65
230	3.83
363	6.05
376	6.27
387	6.45
223	3.72
500	8.33
456	7.60
349	5.82
362	6.03
375	6.25
	0.00

Original value	Standardized value
Social_media_time_min	Social_media_time_hour
160	2.67
226	3.77
196	3.27
105	1.75
211	3.52
284	4.73
180	3.00
138	2.30
114	1.90
119	1.98
58	0.97
91	1.52
94	1.57
252	4.20
134	2.23
200	3.33
228	3.80
174	2.90
181	3.02
188	3.13

**Formula used :**

$$= \text{Minutes} / 60$$

$$= F2 / 60$$

**Screen time activity:**

**Problem identified:**

The dataset had two separate time fields Daily screen time and social media time because these values are stored separately. To understand a person's **total screen exposure** a combined **Screen Time Activity** column was required.

## Action Taken:

Created a new column named Screen Time Activity by adding:

- Daily Screen Time Hours
- Social Media Screen Time Hours.

## Steps followed:

Converted all screen minutes to hours and created a new column called Screen time activity.

Original value	Standardized column
Daily_screen_time_hours	Screen time activity
5.33	8.00
7.55	11.32
5.95	9.22
3.17	4.92
6.38	9.90
8.60	13.33
5.47	8.47
6.57	8.87
5.43	7.33
5.65	7.63
3.83	4.80
6.05	7.57
6.27	7.83
6.45	10.65
3.72	5.95
8.33	11.67
7.60	11.40
5.82	8.72
6.03	9.05
6.25	9.38
0.20	10.70

## Formula used :

$$= (G2 + H2)$$

**Total interaction count:****Problem identified:**

The dataset contained Positive Interaction Count and Negative Interaction Count as separate columns, but there was no single metric representing overall user engagement.

**Action Taken:**

A new calculated column named Total Interaction Count was created. The formula combined both Positive and Negative interactions to represent complete user engagement.

**Steps followed:**

Identified required columns and created as new calculated column called **Total interaction count**.

**Formula used:**

$$= (J2) + (H2)$$

Original value		Standardized value
Negative_interactions_count	Positive_interactions_count	Total interaction count
1	2	3
1	3	4
1	2	3
0	1	1
1	2	3
1	3	4
1	2	3
1	1	2
0	1	1
0	1	1
0	1	1
0	1	1
0	1	1
2	2	4
1	2	3
1	2	3
1	3	4
1	2	3
1	3	4
1	2	3
1	3	4

## Sleep Quality column:

### Problem identified:

The dataset only contained Sleep Hours, but there was no categorized metric to measure sleep quality.

### Action taken:

Sleep hours were classified into categories:

- < 6.5 hours → Poor
- 6–8 hours → Normal
- > 8 hours → High

### Steps Followed:

Identified and created a new column called Sleep Quality and applied IF formula to categorize Sleep hours.

Original value	Standardized value
Physical_activity_min	Sleep Quality
28	Normal
15	Normal
24	Normal
41	Normal
22	Normal
8	Poor
27	Normal
21	Normal
27	Normal
26	Normal
37	Normal
24	Normal
22	Normal
21	Normal
38	Normal
10	Normal
14	Normal
25	Normal
24	Normal
22	Normal
11	Normal

**Formula used:**

```
= IF (M2 < 6.5, "Poor", IF (M2 <= 8, "Normal", "High"))
```

**Activity Category column.****Problem identified:**

The dataset only had Physical Activity (minutes) as a numeric value, which did not provide clear insight into users' activity levels. Without categories like Sedentary, Moderate, or Active, it was difficult to analyze the physical activity.

**Action Taken:**

A new column named Activity Category was created. Physical activity was classified into meaningful categories:

- < 20 min → Sedentary
- 20–40 min → Moderate
- > 60 min → Active.

**Steps Followed:**

Identified and created a new column called Activity category and applied IF formula to categorize.

**Formula used:**

```
= IF (O3 < 20, "Sedentary", IF (O3 <= 40, "Moderate", "Active"))
```

Original value	Standardized value																																									
<table border="1"> <thead> <tr> <th>Physical_activity_min</th></tr> </thead> <tbody> <tr><td>28</td></tr> <tr><td>15</td></tr> <tr><td>24</td></tr> <tr><td>41</td></tr> <tr><td>22</td></tr> <tr><td>8</td></tr> <tr><td>27</td></tr> <tr><td>21</td></tr> <tr><td>27</td></tr> <tr><td>26</td></tr> <tr><td>37</td></tr> <tr><td>24</td></tr> <tr><td>22</td></tr> <tr><td>21</td></tr> <tr><td>38</td></tr> <tr><td>10</td></tr> <tr><td>14</td></tr> <tr><td>25</td></tr> <tr><td>24</td></tr> <tr><td>22</td></tr> <tr><td>11</td></tr> </tbody> </table>	Physical_activity_min	28	15	24	41	22	8	27	21	27	26	37	24	22	21	38	10	14	25	24	22	11	<table border="1"> <thead> <tr> <th>Activity category</th></tr> </thead> <tbody> <tr><td>Moderate</td></tr> <tr><td>Sedentary</td></tr> <tr><td>Moderate</td></tr> <tr><td>Active</td></tr> <tr><td>Moderate</td></tr> <tr><td>Sedentary</td></tr> <tr><td>Moderate</td></tr> <tr><td>Moderate</td></tr> <tr><td>Moderate</td></tr> <tr><td>Moderate</td></tr> <tr><td>Moderate</td></tr> <tr><td>Moderate</td></tr> <tr><td>Sedentary</td></tr> <tr><td>Sedentary</td></tr> <tr><td>Moderate</td></tr> <tr><td>Moderate</td></tr> <tr><td>Moderate</td></tr> <tr><td>Sedentary</td></tr> </tbody> </table>	Activity category	Moderate	Sedentary	Moderate	Active	Moderate	Sedentary	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Sedentary	Sedentary	Moderate	Moderate	Moderate	Sedentary
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### Stress Category:

#### Problem Identified:

The dataset contained only **numeric stress scores (0-10)**, which did not clearly show whether a person's stress was low, medium, or high. Raw numerical values made it difficult to analyze stress distribution.

#### Action taken:

A new classification column called **Stress Category** was created. Stress scores were grouped into meaningful ranges:

- **0-5 → Low**
- **4-7 → Medium**
- **8-10 → High**

## Steps Followed:

Created and inserted a new column called Stress category and applied a nested IF formula to categorize.

Original value	Standardized value
7	Medium
8	High
7	Medium
6	Medium
7	Medium
8	High
7	Medium
7	Medium
6	Medium
6	Medium
5	Low
6	Medium
6	Medium
8	High
6	Medium
8	High
8	High
7	Medium
7	Medium
7	Medium
...	...

## Formula used:

```
= IF (R2 <= 5, "Low", IF (R2<= 7, "Medium", "High"))
```

## Find & Replaced:

The Mental State column contained inconsistent text values such as At\_risk with an underscore. Replaced the incorrect value **At\_risk** with the correct, readable format **At risk**.

Original value	Standardized value
Mental_state	Mental_state
Healthy	Healthy
At_Risk	At Risk
Healthy	Healthy
At_Risk	At Risk

**Using power bi I have taken platform count:**

Selecting the column and group by - Count rows.

The screenshot shows the Power BI Data Editor interface. At the top, there are three buttons: a red X, a green checkmark, and a blue fx. To the right of these is a formula bar containing the text: `= Table.Group(#"Changed Type", {`. Below the formula bar is a table with two columns: "Platform" and "Count". The "Platform" column has a dropdown arrow icon, and the "Count" column also has a dropdown arrow icon. The table contains the following data:

	Platform	Count
1	Instagram	588
2	Snapchat	593
3	Facebook	605
4	WhatsApp	587
5	TikTok	595
6	YouTube	588
7	Twitter	578

After cleaning the dataset, Pasted the cleaned dataset in new Sheet

	A	B	C	D	E	F	G	H	I	J
1	Person_name	Age	Age category	Date	Gender	Platform	Daily_screen_time_hours	Social_media_time_hours	Screen_time_activity	Negative_interactions_count
12	Suhani Das	39	Adult	16-01-2024	Male	WhatsApp	3.83	0.97	4.80	0
13	Vivaan Shetty	28	Adult	27-01-2024	Male	WhatsApp	6.05	1.52	7.57	0
14	Diya Saxena	33	Adult	07-02-2024	Female	WhatsApp	6.27	1.57	7.83	0
28	Navya Menon	30	Adult	20-02-2024	Male	WhatsApp	6.10	1.53	7.63	0
43	Jiya Nair	31	Adult	26-03-2024	Male	WhatsApp	6.37	1.60	7.97	0
44	Vihaan Khan	23	Adult	06-04-2024	Male	WhatsApp	8.58	2.15	10.73	1
57	Anika Saxena	33	Adult	30-04-2024	Female	WhatsApp	6.63	1.67	8.30	0
58	Krishna Das	34	Adult	11-05-2024	Female	WhatsApp	5.50	1.37	6.87	0
72	Myra Nair	25	Adult	04-06-2024	Female	WhatsApp	7.55	1.88	9.43	0
91	Arjun Banerjee	19	Adult	09-07-2024	Female	WhatsApp	7.82	1.95	9.77	0
92	Kavya Yadav	21	Adult	20-07-2024	Female	WhatsApp	8.03	2.00	10.03	0
93	Reyansh Roy	26	Adult	31-07-2024	Male	WhatsApp	6.25	1.57	7.82	0
106	Pooja Ansari	24	Adult	13-08-2024	Male	WhatsApp	8.08	2.02	10.10	1
107	Suhani Rawat	20	Adult	24-08-2024	Male	WhatsApp	8.30	2.07	10.37	1
108	Vivaan Shinde	42	Adult	04-09-2024	Female	WhatsApp	4.52	1.13	5.65	0
124	Sai Naidu	24	Adult	17-09-2024	Male	WhatsApp	8.35	2.08	10.43	1
125	Pooja Choudhary	18	Adult	28-09-2024	Female	WhatsApp	7.57	1.90	9.47	0
126	Payal Iyer	34	Adult	09-10-2024	Female	WhatsApp	5.43	1.37	6.80	0
127	Aarav Ansari	26	Adult	20-10-2024	Male	WhatsApp	5.65	1.42	7.07	0
128	Shaurya Pawar	20	Adult	31-10-2024	Male	WhatsApp	7.87	1.97	9.83	0

Created Some tables Instagram, WhatsApp, Facebook and Snapchat.

## Facebook:

Person_name	Age	Age category	Date	Gender	Platform	Daily_screen_time_hours	Social_media_time_hours	Screen_time_activity	Negative_interactions_count	Positive_interactions_count
Meera Das	28	Adult	11-01-2024	Female	Facebook	6.57	2.30	8.87	1	
Vihaan Naidu	31	Adult	22-01-2024	Male	Facebook	5.43	1.90	7.33	0	
Meera Patil	26	Adult	02-02-2024	Female	Facebook	5.65	1.98	7.63	0	
Payal Patel	19	Adult	15-02-2024	Female	Facebook	7.48	2.62	10.10	1	
Payal Ansari	63	Adult	26-02-2024	Female	Facebook	2.70	0.95	3.65	0	
Diya Kale	35	Adult	08-03-2024	Female	Facebook	5.92	2.07	7.98	1	
Neha Naidu	17	Child	21-03-2024	Male	Facebook	6.75	2.37	9.12	1	
Saanvi Patil	40	Adult	01-04-2024	Female	Facebook	3.97	1.38	5.35	0	
Krishna Yadav	22	Adult	25-04-2024	Female	Facebook	8.02	2.80	10.82	1	
Kavya Rawat	23	Adult	06-05-2024	Female	Facebook	8.23	2.88	11.12	1	
Meera Sharma	21	Adult	30-05-2024	Female	Facebook	8.28	2.90	11.18	1	
Diya Naidu	43	Adult	10-06-2024	Male	Facebook	4.50	1.57	6.07	0	
Meera Kulkarni	17	Child	21-06-2024	Male	Facebook	6.37	2.23	8.60	1	
Aditya Sharma	30	Adult	04-07-2024	Female	Facebook	6.55	2.30	8.85	1	
Neha Reddy	30	Adult	08-08-2024	Female	Facebook	5.47	1.92	7.38	0	
Aadhya Joshi	16	Child	19-08-2024	Male	Facebook	6.68	2.33	9.02	1	
Anika Ghosh	38	Adult	12-09-2024	Male	Facebook	3.73	1.30	5.03	0	

## Instagram:

Person_name	Age	Age category	Date	Gender	Platform	Daily_screen_time_hours	Social_media_time_hour	Screen time activity	Negative_interactions_count	Positive_interactions_count
Reyansh Ghosh	35	Adult	01-01-2024	Male	Instagram	5.33	2.67	8.00	1	
Neha Patel	24	Adult	12-01-2024	Female	Instagram	7.55	3.77	11.32	1	
Avni Rathod	24	Adult	05-02-2024	Female	Instagram	7.60	3.80	11.40	1	
Neha Pawar	34	Adult	16-02-2024	Female	Instagram	5.82	2.90	8.72	1	
Anika Nair	28	Adult	27-02-2024	Male	Instagram	6.03	3.02	9.05	1	
Pooja Roy	34	Adult	09-03-2024	Female	Instagram	6.25	3.13	9.38	1	
Saanvi Rawat	25	Adult	11-03-2024	Female	Instagram	7.87	3.93	11.80	1	
Shaurya Saxena	21	Adult	15-04-2024	Female	Instagram	8.13	4.07	12.20	1	
Ishaan Chauhan	13	Child	20-05-2024	Male	Instagram	7.40	3.70	11.10	1	
Saanvi Deshmukh	24	Adult	31-05-2024	Female	Instagram	8.62	4.30	12.92	1	
Aarav Menon	29	Adult	11-06-2024	Female	Instagram	5.48	2.73	8.22	1	
Arjun Patil	32	Adult	24-06-2024	Male	Instagram	6.67	3.33	10.00	1	
Diya Naidu	45	Adult	05-07-2024	Male	Instagram	3.53	1.77	5.30	0	
Suhani Roy	38	Adult	16-07-2024	Female	Instagram	3.75	1.87	5.62	0	
Aditya Sharma	23	Adult	27-07-2024	Male	Instagram	7.97	3.98	11.95	1	
Navya Chauhan	22	Adult	29-07-2024	Female	Instagram	7.58	3.80	11.38	1	
Ananya Banerjee	21	Adult	02-09-2024	Male	Instagram	7.85	3.93	11.78	1	

## Snapchat:

Person_name	Age	Age category	Date	Gender	Platform	Daily_screen_time_hours	Social_media_time_hour	Screen time activity	Negative_interactions_count	Positive_interactions_count
Ananya Naidu	26	Adult	06-01-2024	Male	Snapchat	5.95	3.27	9.22	1	
Neha Das	66	Adult	17-01-2024	Female	Snapchat	3.17	1.75	4.92	0	
Reyansh Banerjee	31	Adult	28-01-2024	Male	Snapchat	6.38	3.52	9.90	1	
Myra Kale	25	Adult	08-02-2024	Female	Snapchat	8.60	4.73	13.33	1	
Ananya Kulkarni	29	Adult	19-02-2024	Female	Snapchat	5.47	3.00	8.47	1	
Shaurya Rawat	22	Adult	10-02-2024	Female	Snapchat	8.22	4.52	12.73	1	
Aditi Mishra	36	Adult	21-02-2024	Male	Snapchat	4.43	2.43	6.87	1	
Saanvi Saxena	51	Adult	03-03-2024	Female	Snapchat	3.65	2.00	5.65	0	
Reyansh Pawar	36	Adult	16-03-2024	Male	Snapchat	4.48	2.47	6.95	1	
Vihaan Yadav	38	Adult	20-04-2024	Female	Snapchat	3.40	1.87	5.27	0	
Isha Patel	25	Adult	01-05-2024	Male	Snapchat	7.62	4.18	11.80	1	
Reyansh Choudhary	26	Adult	25-05-2024	Male	Snapchat	5.67	3.12	8.78	1	
Aditya Iyer	21	Adult	29-06-2024	Female	Snapchat	7.93	4.37	12.30	1	
Saanvi Yadav	45	Adult	10-07-2024	Female	Snapchat	4.15	2.28	6.43	1	
Vihaan Saxena	36	Adult	03-08-2024	Female	Snapchat	4.20	2.32	6.52	1	
Arjun Kale	22	Adult	14-08-2024	Female	Snapchat	8.42	4.63	13.05	1	
Reyansh Deshmukh	22	Adult	25-08-2024	Female	Snapchat	8.63	4.75	13.38	1	

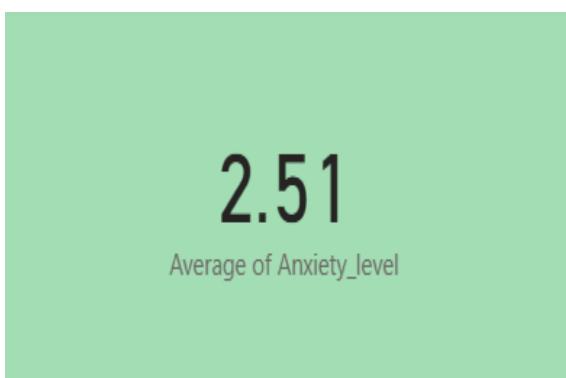
## WhatsApp:

Person_name	Age	Age category	Date	Gender	Platform	Daily_screen_time_hours	Social_media_time_hours	Screen time activity	Negative_interactions_count	Positive_interactions_count
Suhani Das	39	Adult	16-01-2024	Male	WhatsApp	3.83	0.97	4.80	0	10
Vivaan Shetty	28	Adult	27-01-2024	Male	WhatsApp	6.05	1.52	7.57	0	10
Diya Saxena	33	Adult	07-02-2024	Female	WhatsApp	6.27	1.57	7.83	0	10
Navya Menon	30	Adult	20-02-2024	Male	WhatsApp	6.10	1.53	7.63	0	10
Jiya Nair	31	Adult	26-03-2024	Male	WhatsApp	6.37	1.60	7.97	0	10
Vihaan Khan	23	Adult	06-04-2024	Male	WhatsApp	8.58	2.15	10.73	1	10
Anika Saxena	33	Adult	30-04-2024	Female	WhatsApp	6.63	1.67	8.30	0	10
Krishna Das	34	Adult	11-05-2024	Female	WhatsApp	5.50	1.37	6.87	0	10
Myra Nair	25	Adult	04-06-2024	Female	WhatsApp	7.55	1.88	9.43	0	10
Arjun Banerjee	19	Adult	09-07-2024	Female	WhatsApp	7.82	1.95	9.77	0	10
Kavya Yadav	21	Adult	20-07-2024	Female	WhatsApp	8.03	2.00	10.03	0	10
Reyansh Roy	26	Adult	31-07-2024	Male	WhatsApp	6.25	1.57	7.82	0	10
Pooja Ansari	24	Adult	13-08-2024	Male	WhatsApp	8.08	2.02	10.10	1	10
Suhani Rawat	20	Adult	24-08-2024	Male	WhatsApp	8.30	2.07	10.37	1	10
Vivaan Shinde	42	Adult	04-09-2024	Female	WhatsApp	4.52	1.13	5.65	0	10
Sai Naidu	24	Adult	17-09-2024	Male	WhatsApp	8.35	2.08	10.43	1	10
Pooja Choudhary	18	Adult	28-09-2024	Female	WhatsApp	7.57	1.90	9.47	0	10

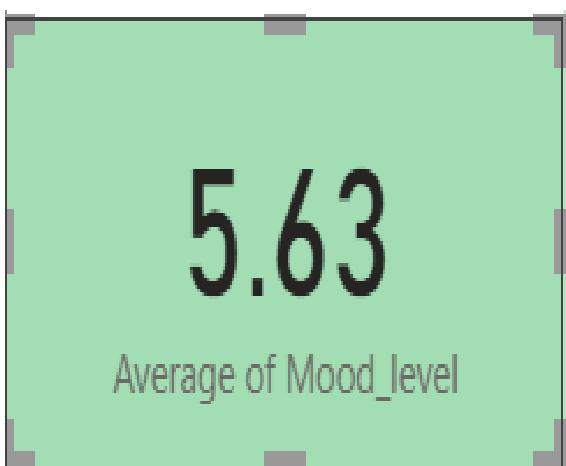
# Visualization using Power Bi

## Measures:

**Average price of anxiety level:** The average anxiety level among users is 2.51, indicating generally low anxiety levels in the dataset. This suggests that most individuals experience mild or manageable anxiety based on the collected responses.



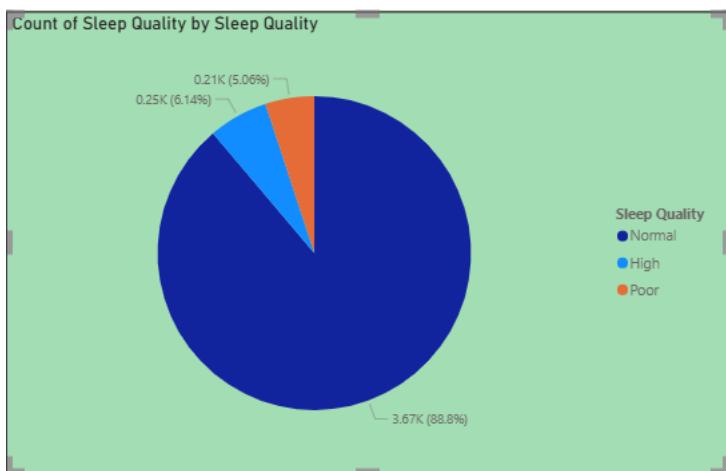
**Average Mood level:** The average mood level is 5.63, indicating a generally moderate and stable emotional state among users. This suggests that most individuals experience balanced mood levels with neither extreme highs nor lows.



## Charts:

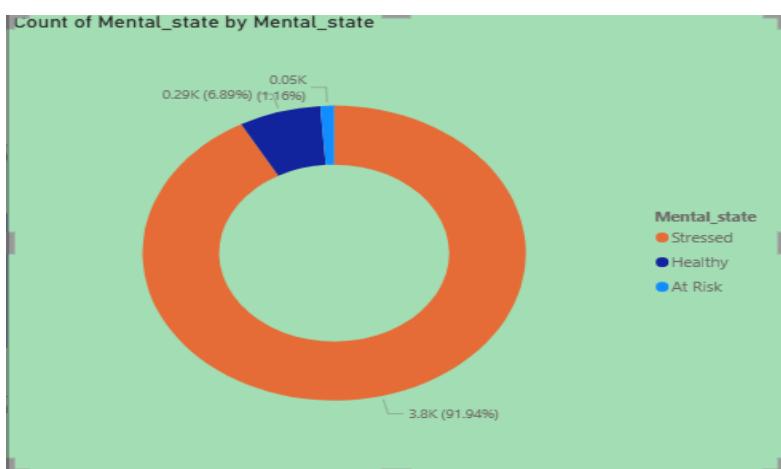
**Pie chart:** Using to analysis count of sleep Quality

**Findings:** The chart shows that the majority of users (88.8%) have *Normal* sleep quality, while only a small portion report *High* (6.14%) or *Poor* (5.06%) sleep. Overall, sleep quality appears generally balanced with very few extreme cases.



**Donut chart:** Used to analyze mental state of each user.

**Findings:** The visualization shows that a large majority of users (91.94%) fall under the *Stressed* category, while only a small proportion are *Healthy* (6.89%) or *At Risk* (1.16%). This indicates a high overall stress burden among the population in the dataset.



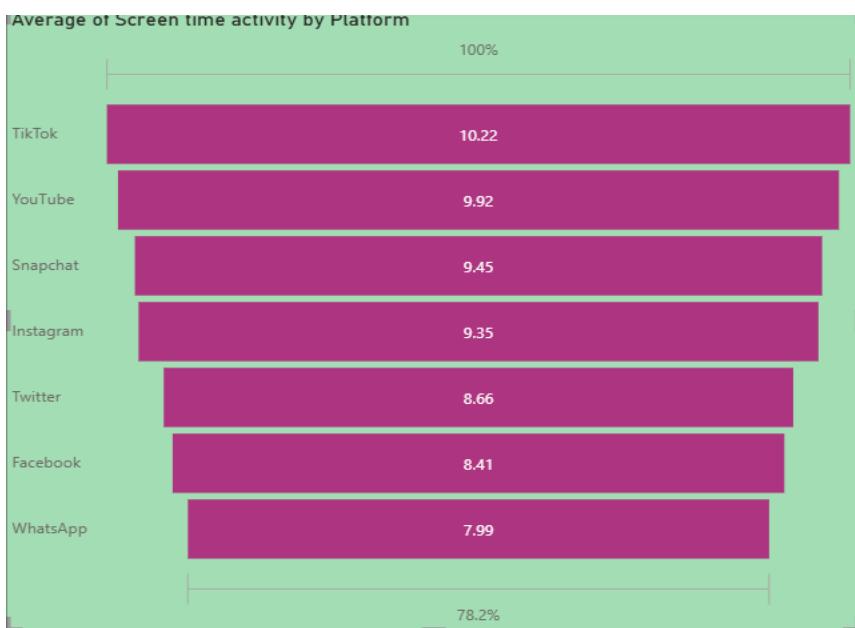
**Line Chart:** Used to analyze the stress level in each user.

**Findings:** The chart shows a clear downward trend where stress levels decrease as sleep hours increase. This indicates that individuals who get more sleep generally experience lower stress levels.



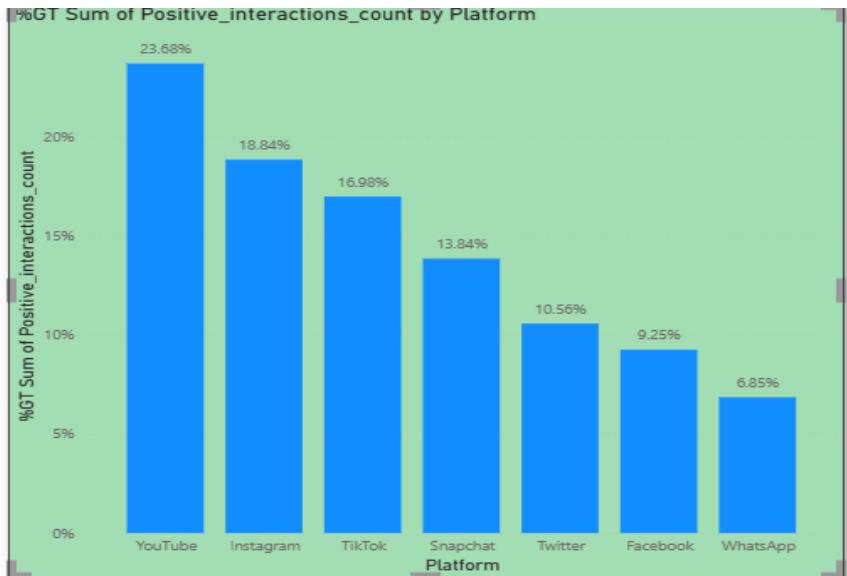
**Funnel chart:** Used to find out average screen time activity.

**Findings:** TikTok and YouTube show the highest average screen time, indicating they are the most engaging platforms among users. WhatsApp and Facebook have the lowest screen time, suggesting comparatively lighter usage.



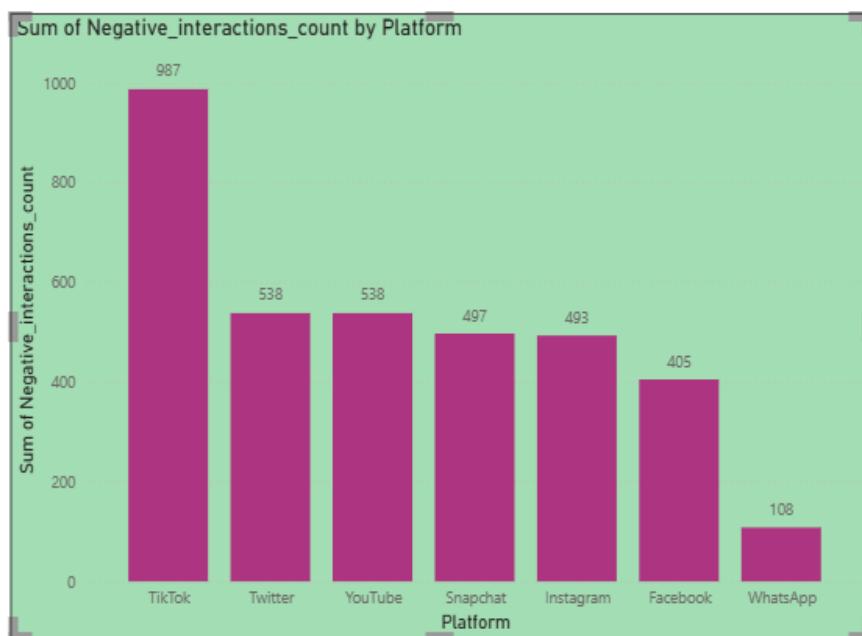
**Clustered column chart:** Used to analyze Positive interaction count by using platform.

### Positive interaction chart:



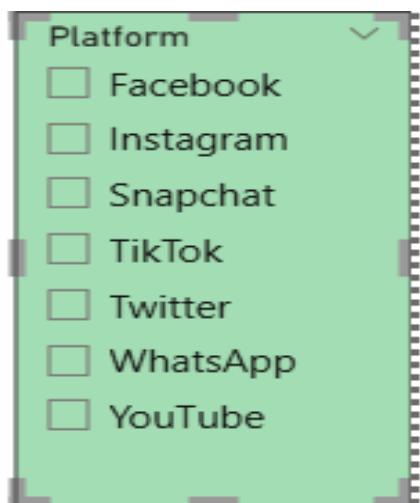
**Stacked column chart:** Used to analyze Negative interaction using platform

### Negative interaction chart:

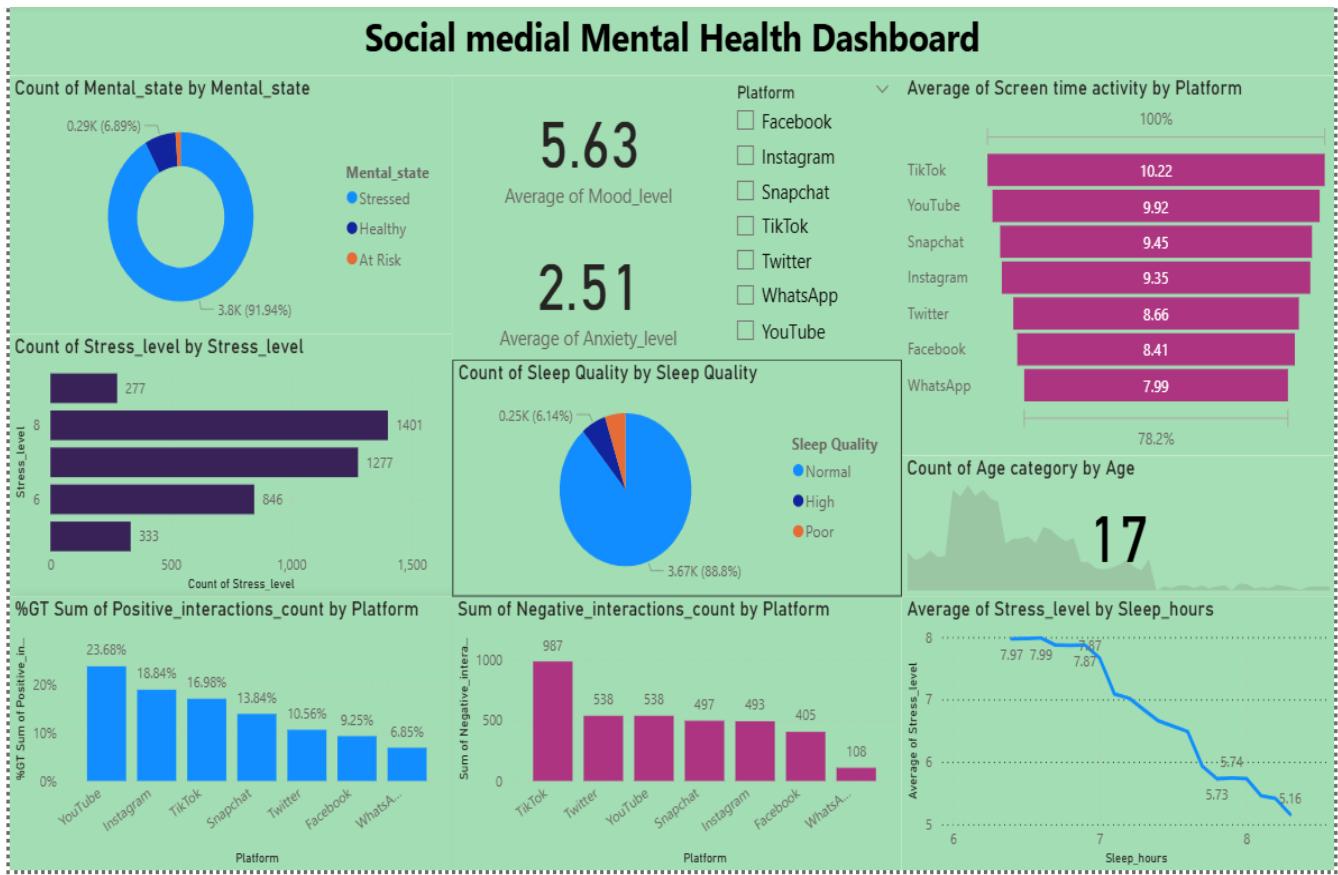


**Slicers:** slicers used by platform.

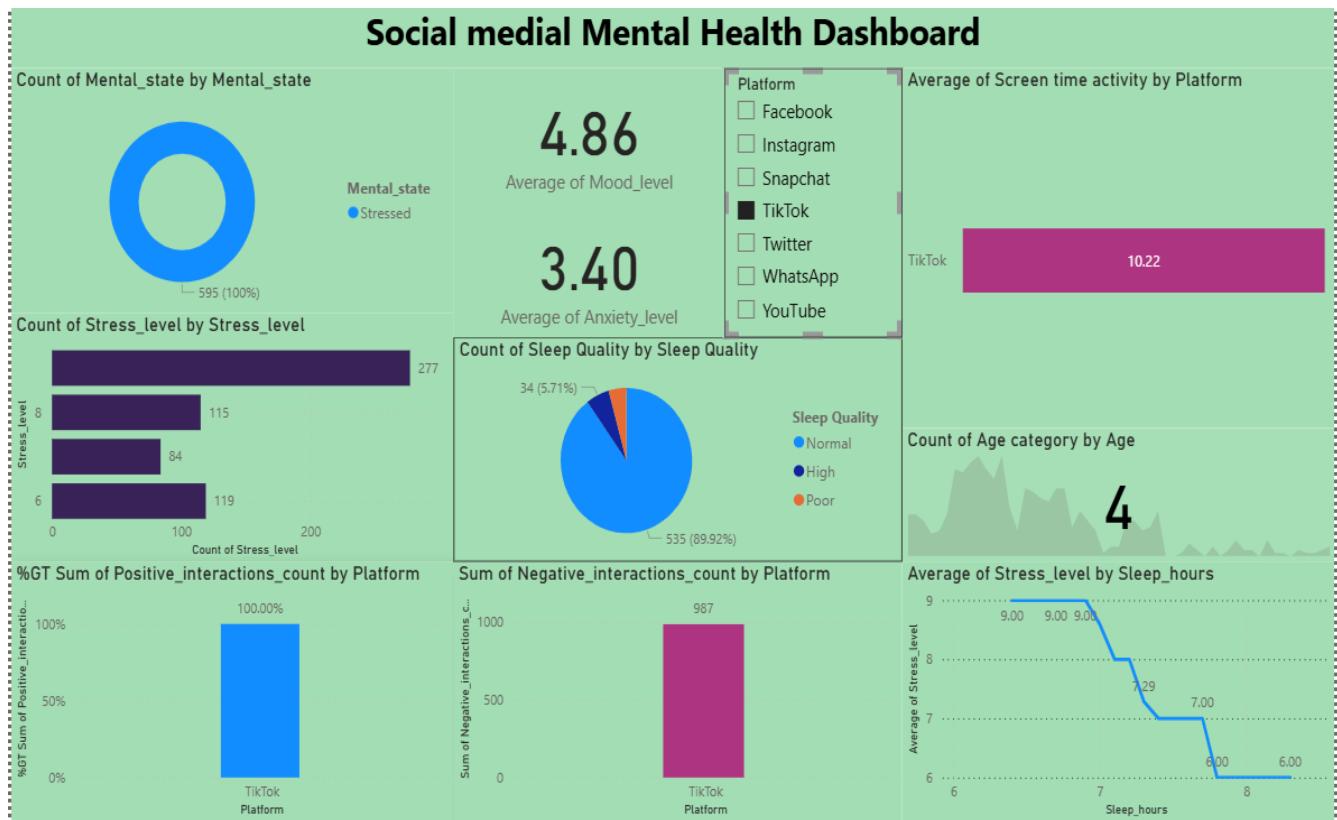
**Findings:** A platform slicer has been added to allow users to filter the dashboard by individual social media platforms. This enables interactive and focused analysis based on specific platform usage.



# DASHBOARD



# AFTER USING SLICERS IN DASHBOARD



## **Insights:**

- Stress decreases as sleep increases

The line chart shows a strong negative relationship between sleep hours and stress levels.

→ More sleep = Lower stress

→ Users getting 8+ hours of sleep show the lowest stress levels.

- Most users have Normal sleep quality

Nearly 89% of users have *Normal* sleep, with only small portions experiencing high or poor sleep quality.

→ Sleep is not a major issue for the majority.

- Mental health concern: Majority of users are stressed

The donut chart shows 91.94% of users are classified as Stressed, with very few being Healthy or At Risk.

→ This indicates a high mental burden across the population, despite normal sleep patterns.

- Average anxiety level is low

The average anxiety score is 2.51, indicating mild anxiety for most users.

→ Anxiety is not the primary contributor to mental distress.

- Mood levels are moderate

The average mood score of 5.63 indicates that most users are in a balanced emotional state, neither highly positive nor negative.

- TikTok and YouTube drive the highest screen time

The funnel chart shows:

- TikTok → Highest average screen time
- YouTube → Second highest
- WhatsApp & Facebook → Lowest

→ Platforms with more entertainment-focused content show longer engagement.

- High screen time may be contributing to stress

Since a majority of users are stressed, and some platforms show heavy screen time, it suggests:

→ High platform usage could be linked to higher stress levels, especially for TikTok and YouTube users.

- Slicer enables focused analysis

The platform slicer makes it possible to analyze:

- Stress by platform
- Sleep by platform
- Interaction levels
- Mood and anxiety comparisons

## **Conclusion:**

The analysis shows that while most users have normal sleep quality, overall stress levels remain significantly high. Increased sleep hours are strongly linked to lower stress, highlighting sleep as a key protective factor. Screen time is highest on TikTok and YouTube, suggesting these platforms contribute to longer digital engagement. Children and adults show different patterns in social media usage, with adults generally spending more time across multiple platforms. Stress levels tend to be higher among adults, likely due to greater digital exposure and lifestyle pressures. Children show comparatively lower screen time but are still influenced by high-engagement apps. Overall, balanced sleep and mindful screen usage appear essential for improving mental well-being in this population.