Problem Statement

The primary objective is to analyze the "Social Media and Entertainment Dataset" to uncover insights into user engagement and content popularity across various social media platforms. This analysis aims to inform strategies for enhancing user interaction and optimizing content delivery

Key Performance Indicators (KPIs)

I measured the effectiveness of social media and entertainment content, by considering the following KPIs:

1. **Average Daily Screen Time: Understanding the daily screen time of users to assess their digital consumption.**
2. **Social Media Fatigue Levels: Identifying factors contributing to fatigue and trends among users.**
3. **Correlation Between Average SleepTime_hrs and Screen Time_hrs: Measuring the impact of screen time on users' sleep quality.**
4. **Average Monthly Expenditure on Entertainment by occupation: Identifying AND calculating the most used platforms and devices for entertainment and communication alongside their occupation and their monthly expenses.**
5. **Digital Well-being Awareness: COUNT how many users' awareness of digital well-being tools from moderate, high, and low**
6. **Revenue from Subscription Platforms: Calculating the average monthly expenditure on entertainment platforms.**
7. **Impact of Tech Savviness on Content Preferences: Exploring how tech-savvy users engage with content.**

Query 1:Average Daily Screen Time by age:

```
/* Daily ScreenTime, this is for each age group*/
SELECT Age, ROUND(AVG(ScreenTime_hrs), 2) AS avg_daily_ScreenTime
FROM social_media.social_media
GROUP BY Age;
```

Result Grid | Filter Rows: | Export:

Age	avg_daily_ScreenTime
32	6.98
62	7.1
51	7.04
44	6.93
21	7.03
16	6.99
58	6.97
49	6.94
14	6.91
63	6.9
56	6.99
24	6.95
22	6.99
28	7.01
40	6.93
35	7.05
20	6.98
36	6.95

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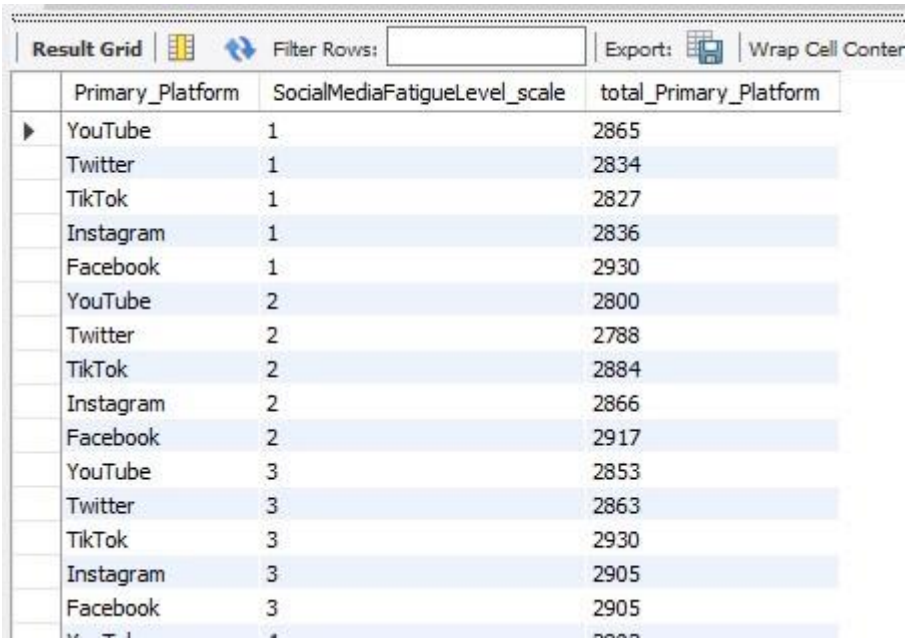
Query2: Social Media Fatigue Levels

/*THIS QUERY LOOKED AT THE TOP PLATFORMS THAT CAUSES FATIGUE LEVELS With a scale 1-10*/

```
SELECT  Primary_Platform, SocialMediaFatigueLevel_scale, COUNT(*) AS
total_Primary_Platform

FROM social_media.social_media

GROUP BY SocialMediaFatigueLevel_scale, Primary_Platform

ORDER BY SocialMediaFatigueLevel_scale, Primary_Platform DESC
```



Primary_Platform	SocialMediaFatigueLevel_scale	total_Primary_Platform
YouTube	1	2865
Twitter	1	2834
TikTok	1	2827
Instagram	1	2836
Facebook	1	2930
YouTube	2	2800
Twitter	2	2788
TikTok	2	2884
Instagram	2	2866
Facebook	2	2917
YouTube	3	2853
Twitter	3	2863
TikTok	3	2930
Instagram	3	2905
Facebook	3	2905

QUERY 3: Correlation Between AverageSleepTime_hrs and Screen Time_hrs

/*Correlation between sleep quality scale and Screen time,

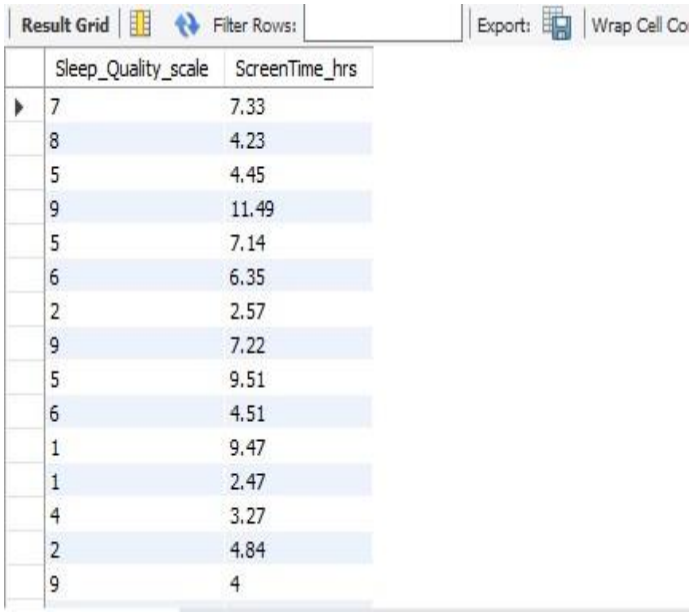
I used AI to help me with this query since the MYSQL workbench doesn't have the CORR function*/

```
SELECT
  (COUNT(*) * SUM(Sleep_Quality_scale * ScreenTime_hrs) - SUM(Sleep_Quality_scale) * SUM(ScreenTime_hrs)) /
  SQRT(
    (COUNT(*) * SUM(POW(Sleep_Quality_scale, 2)) - POW(SUM(Sleep_Quality_scale), 2)) *
    (COUNT(*) * SUM(POW(ScreenTime_hrs, 2)) - POW(SUM(ScreenTime_hrs), 2))
  ) AS correlation_coefficient
FROM social_media.social_media;
```

correlation_coefficient
0.008079433762104O3

This shows positive correlation as its headed more to a whole number or its above 0.5

```
SELECT Sleep_Quality_scale, ScreenTime_hrs
FROM social_media.social_media;
```



Sleep_Quality_scale	ScreenTime_hrs
7	7.33
8	4.23
5	4.45
9	11.49
5	7.14
6	6.35
2	2.57
9	7.22
5	9.51
6	4.51
1	9.47
1	2.47
4	3.27
2	4.84
9	4

Query 4: Average Monthly Expenditure on Entertainment by Occupation

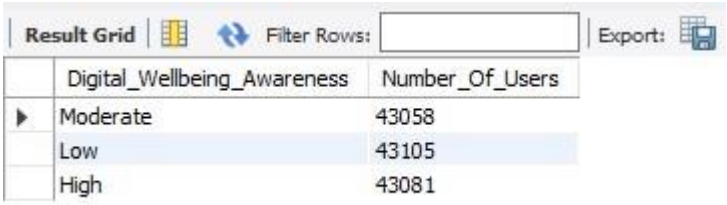
```
SELECT  PreferredEntertainment_Platform, Occupation,
ROUND(AVG(Monthly_Expenditure_on_Entertainment_USD), 2) AS Expenditure

FROM social_media.social_media

GROUP BY Occupation, PreferredEntertainment_Platform;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

PreferredEntertainment_Platform	Occupation	Expenditure
Netflix	Professional	251.3
Spotify	Student	246.04
Spotify	Retired	249.83
Amazon Prime	Student	251.49
Amazon Prime	Retired	250.91
Amazon Prime	Unemployed	249.27
YouTube	Student	247.32
Amazon Prime	Professional	247.85
Netflix	Retired	251.95
Spotify	Professional	251.31
Netflix	Unemployed	253.17
YouTube	Retired	246.64
YouTube	Professional	249.4
YouTube	Unemployed	249.19

QUERY 5: Digital Well-being Awareness

```
SELECT Digital_Wellbeing_awareness, COUNT(*) AS Users
FROM social_media.social_media
WHERE Digital_Wellbeing_awareness IN ('Moderate', 'high', 'low')
GROUP BY Digital_Wellbeing_awareness
```

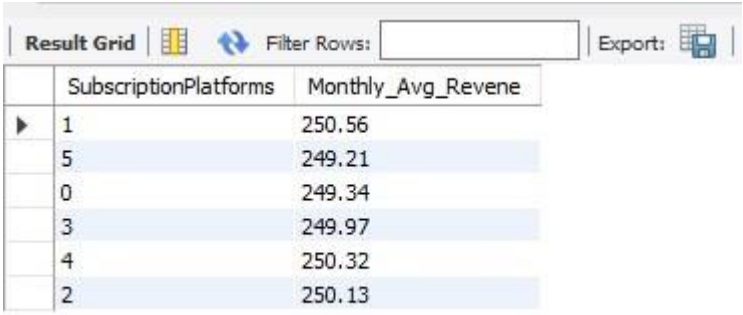


Result Grid | Filter Rows: | Export:

Digital_Wellbeing_Awareness	Number_Of_Users
Moderate	43058
Low	43105
High	43081

QUERY 6: AVG Revenue from Subscription Platforms

```
SELECT SubscriptionPlatforms,
Round(AVG(Monthly_Expenditure_on_Entertainment_USD), 2) AS Monthly_Avg_Revene
FROM social_media.social_media
GROUP BY SubscriptionPlatforms;
```

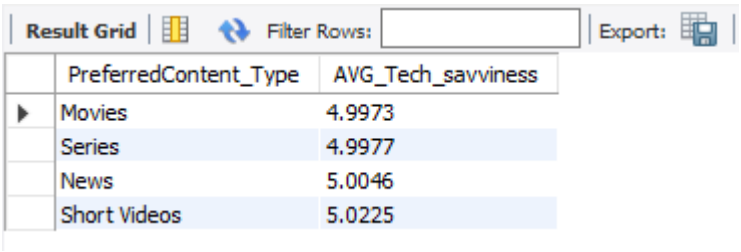


Result Grid | Filter Rows: | Export:

SubscriptionPlatforms	Monthly_Avg_Revene
1	250.56
5	249.21
0	249.34
3	249.97
4	250.32
2	250.13

QUERY 7: Impact of Tech Savviness on Content Preferences

```
SELECT PreferredContent_Type, AVG(Tech_Savviness_Level_scale) AS
AVG_Tech_savviness

FROM social_media.social_media

GROUP BY PreferredContent_Type

ORDER BY AVG_Tech_savviness
```



PreferredContent_Type	AVG_Tech_savviness
Movies	4.9973
Series	4.9977
News	5.0046
Short Videos	5.0225

Project Conclusion

This project provided valuable insights into digital consumption patterns. By leveraging SQL for data exploration and Tableau and Power BI for visualization, we delivered actionable recommendations to improve users' digital well-being.

Reference:

Social media dataset