Output Findings Explaination
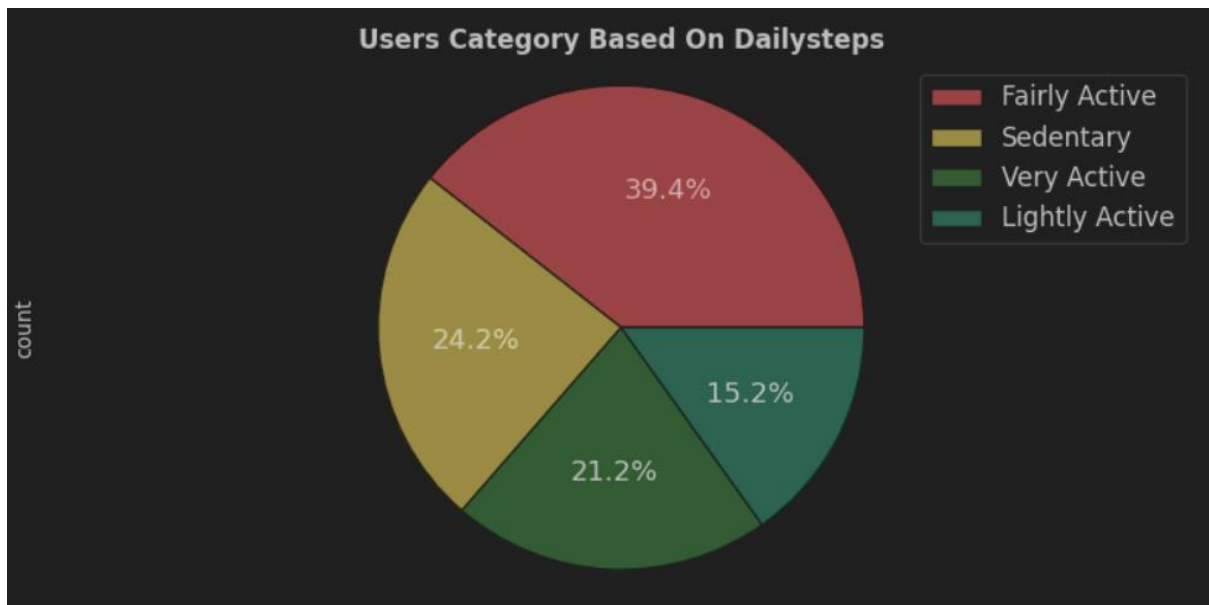

Among all users, the distribution based on activity levels is as follows:

* Sedentary: Approximately 24.2% of users take less than 5000 steps per day.

* Lightly Active: Around 15.2% of users take between 5000 and 7000 steps per day.

* Fairly Active: Roughly 39.4% of users take between 7000 and 10,000 steps per day.

* Very Active: About 21.2% of users take more than 10,000 steps per day.

Total Avg Steps Days Of Week Wise
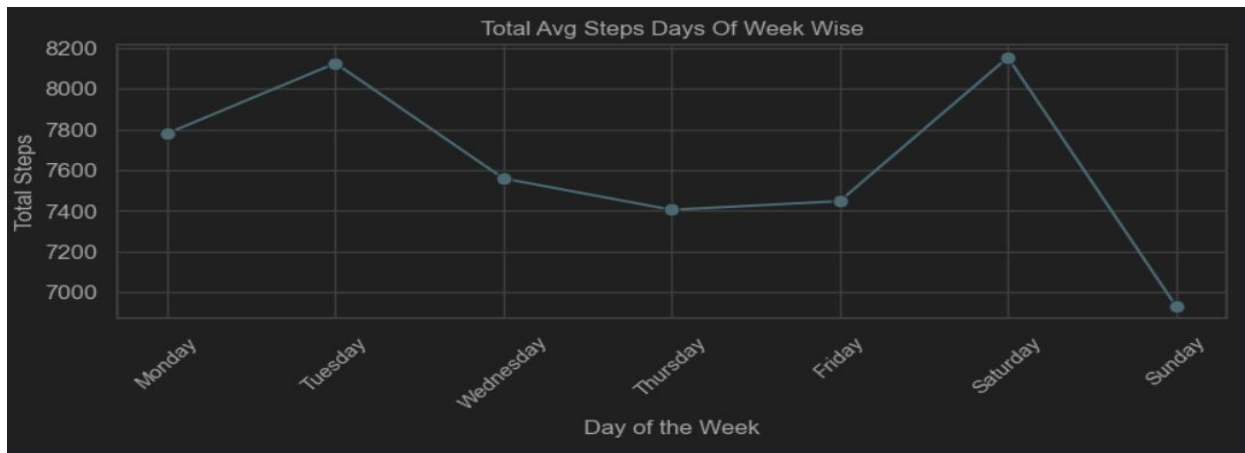
By analyzing the data through graphs, we can discern patterns in user activity throughout the weekdays.

Key Takeways :
* Saturday & Tuesday: These are the most active days with average total steps consistently surpassing 8000.
* Sunday: Notably less active, with a lower average step count.
* Weekday Decline: Following Tuesday, there is a gradual decline in activity levels, indicating reduced physical activity as the week advances.

These insights can help us understand how users' activity patterns vary throughout the weekdays, aiding in the development of strategies to encourage consistent physical activity.


Scatter Plot : Calories vs TotalSteps
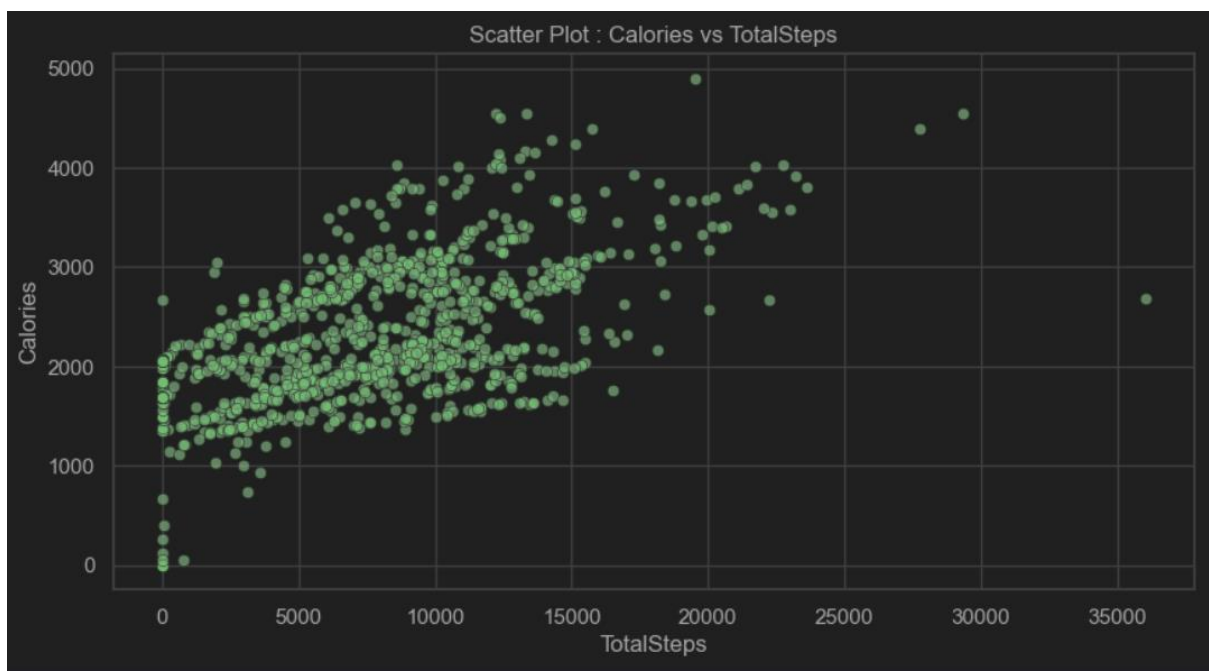
The scatter plot vividly illustrates a positive correlation between Calories and Total Steps. As the step count increases, a corresponding rise in calorie expenditure becomes evident, showcasing a direct relationship between physical activity and the calories burned.
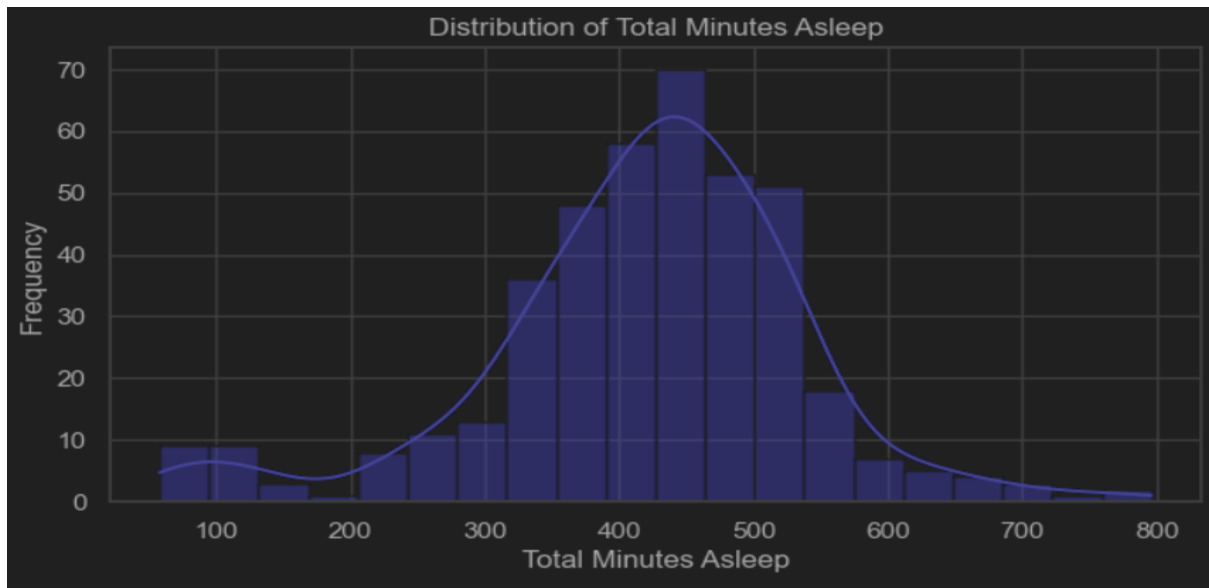
We observe that, on average, users spend 419 minutes (nearly 7 hours) asleep and 458 minutes in bed. The maximum recorded time is 796 minutes.

Several studies, such as those conducted by the National Sleep Foundation, the American Academy of Sleep Medicine, and the Centers for Disease Control and Prevention (CDC) shows that The amount of sleep considered good for women, as supported by various studies, typically falls within the range of 7 to 9 hours per night for optimal health and well-being. However, individual sleep needs can vary based on factors such as age, activity level, overall health, and genetics.

insights about sleep are valuable for health, productivity, and overall well-being. They can be applied in areas such as physical and mental health, productivity, athletic performance, mental health, cognitive function, driving safety, lifestyle choices, aging, parenting, clinical settings, and research. Understanding sleep patterns and needs can lead to better decision-making and improved outcomes in various aspects of life.
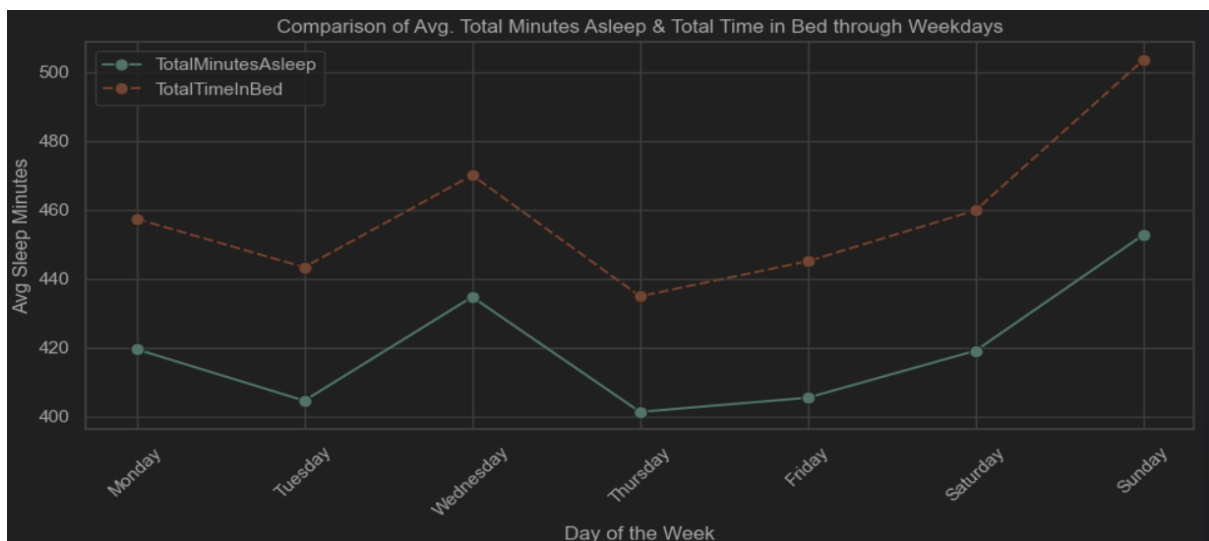

Upon analysis, it's evident that Wednesdays and Sundays stand out as the weekdays when the majority of users enjoy an average sleep time of 7.2 and 7.5 hours, respectively. Notably, these durations exceed 420 minutes, equivalent to around 7 hours. In contrast, sleep durations on other days appear to be comparatively lower. Sundays seems more like weekend when users tends to get more sleep.

Hourly Step Totals
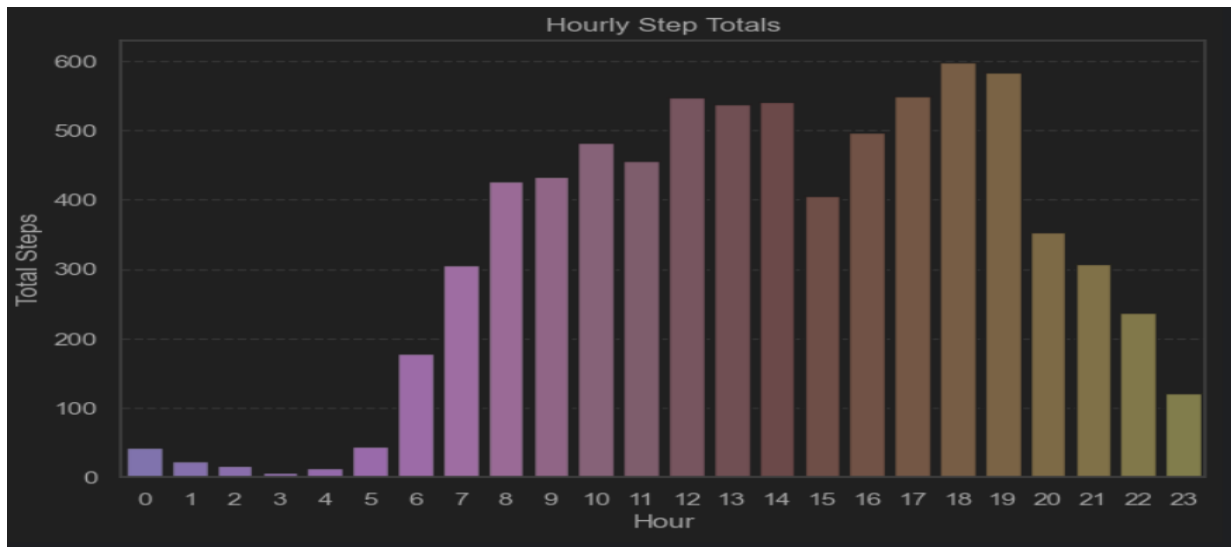
Users show a clear trend of increased activity starting from 6 to 8 am in the morning. Activity remains relatively consistent throughout the day, with notable peaks around 12 to 1 pm and 5 to 7 pm, where average step counts surpass 500.

After 8 pm, activity levels decline noticeably, continuing to decrease as the night progresses. This decline suggests that users tend to wind down and rest during these late hours.

Average Calories Burned Hourly
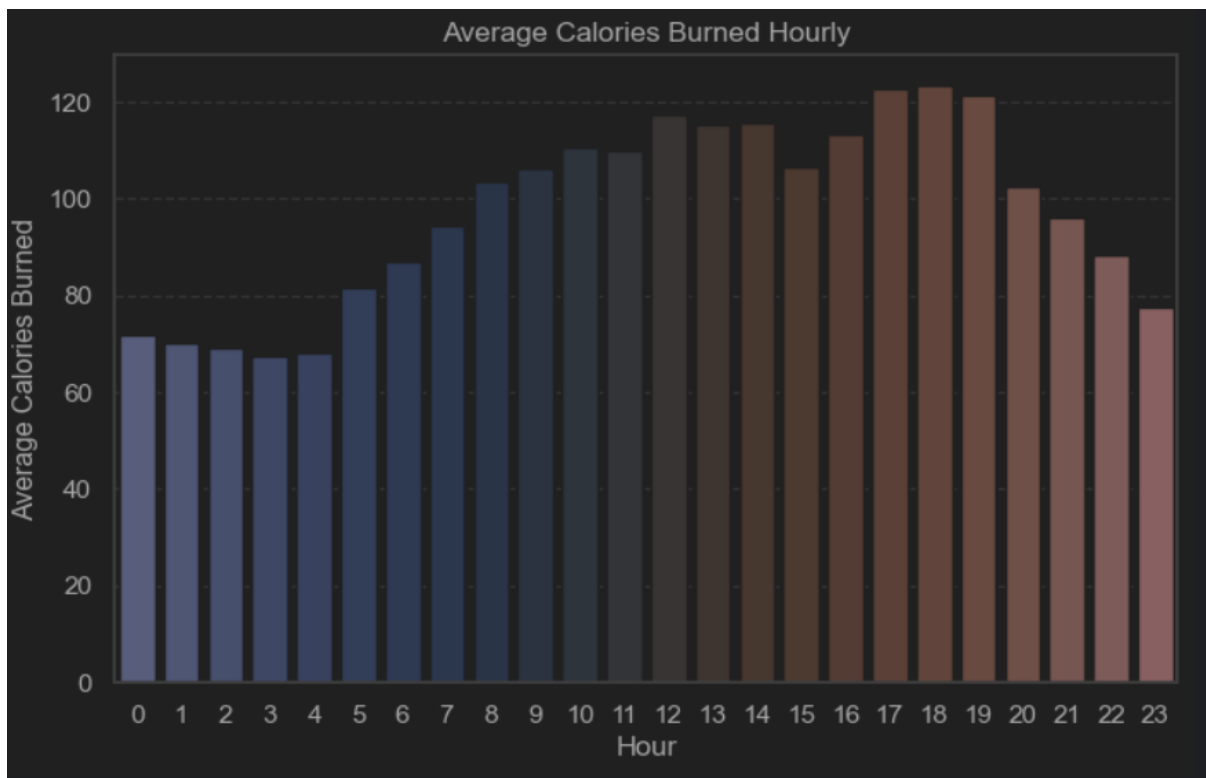
The analysis of average calories burned throughout the 24-hour period reveals a pattern reminiscent of the total steps taken. Caloric expenditure shows a gradual rise from 5 in the morning, steadily increasing throughout the day until it begins to decline after 7 in the evening. Notably, the peak periods for calorie burn are observed between 11 AM to 1 PM in the afternoon and from 5 PM to 7 PM in the evening.

Daily Use of App
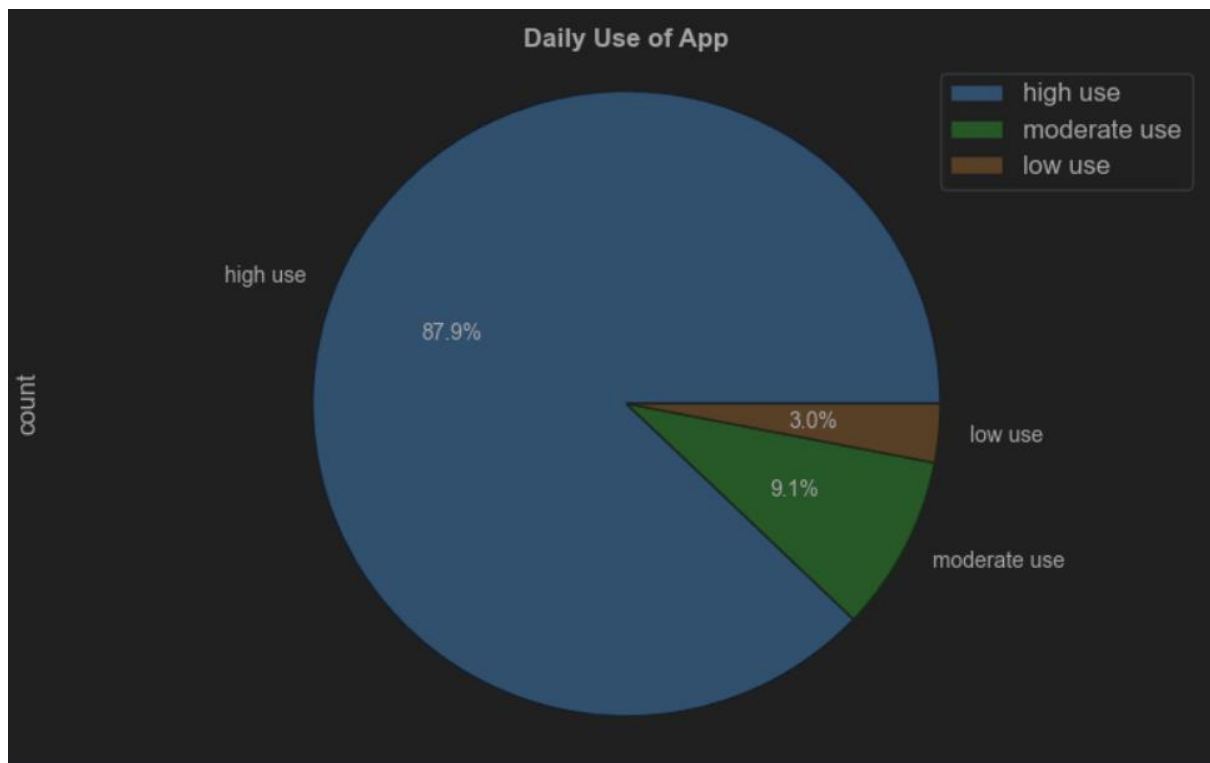
When considering the entire user base, the distribution of users based on app usage frequency categories is as follows:

- **High Use Category: 87.9%**

- **Low Use Category: 3.0%**

- **Moderate Use Category:9.1%**