

Health data analysis

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Introduction

Health data has been collected from 30 users of a particular health care device for a period of one month from 4/12/2016 to 5/12/2016 with their consent. The Data give information about daily and hourly activities, sleep, weight log etc. Some analysis has been done on this data to find patterns in health care activities and to devise some marketing strategies for health care products.

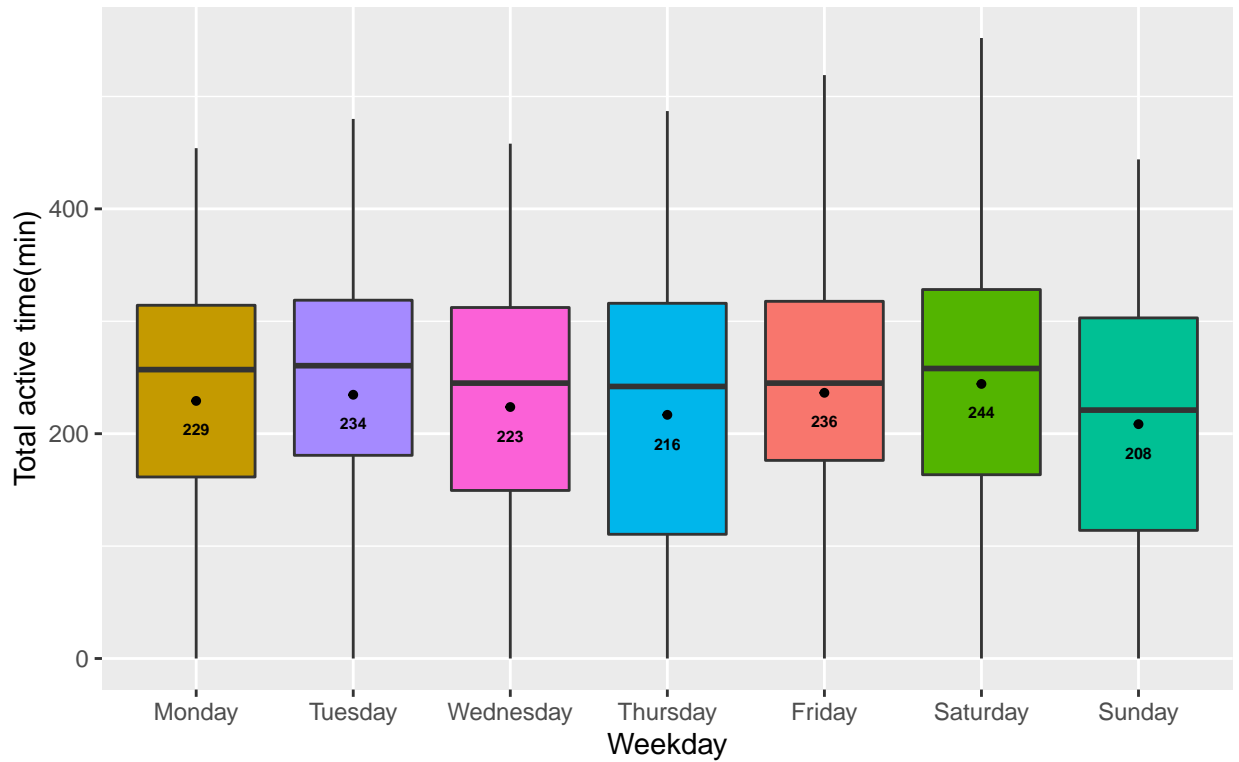
Data sets used

- daily_Activity_merged - Daily information about healthcare activities like active time, calories burned, Steps taken etc.
- hourly_calories_merged - Information about calories burned during each hour on different days.
- hourly_intensities_merged - Information about intensity of physical activity during each hour on different days.
- hourly_steps_merged - Information about total steps taken during each hour on different days.
- sleep_day_merged - Daily information about sleep cycles like total sleep time, total time in bed, number of sleep session etc.

Analysis

Physical activities on different days of week.

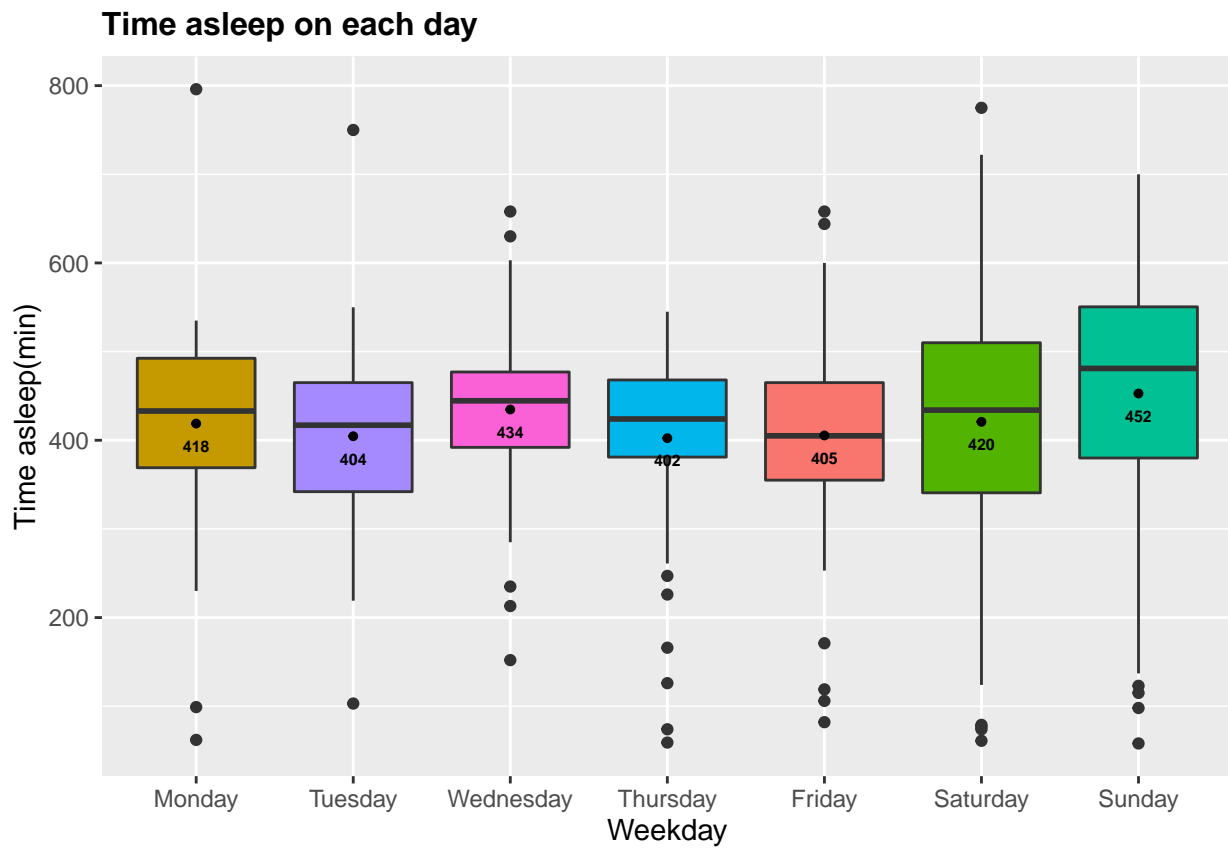
Total activity period on each day



Mean is labelled

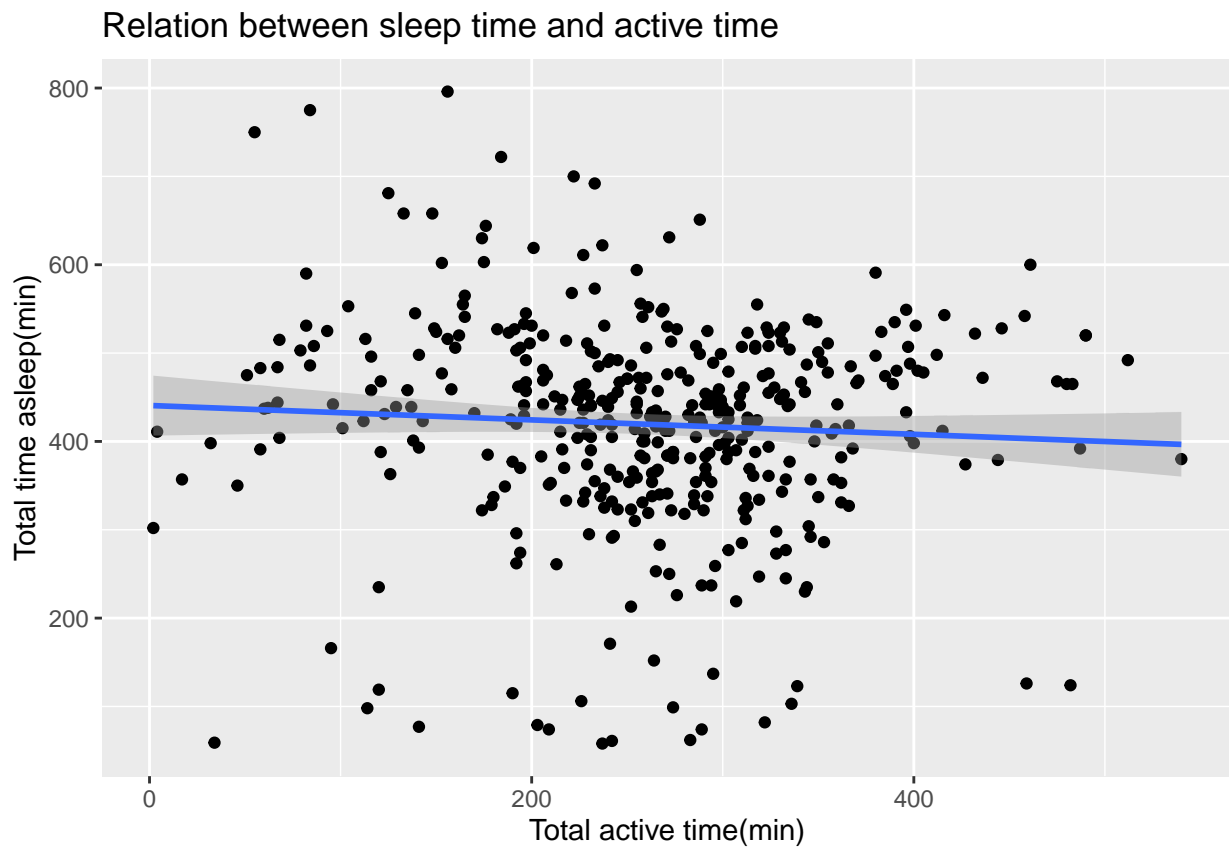
- Users are most active on Saturdays followed by Fridays.
- Least activity is recorded on Sundays.

Time asleep on different days of week.



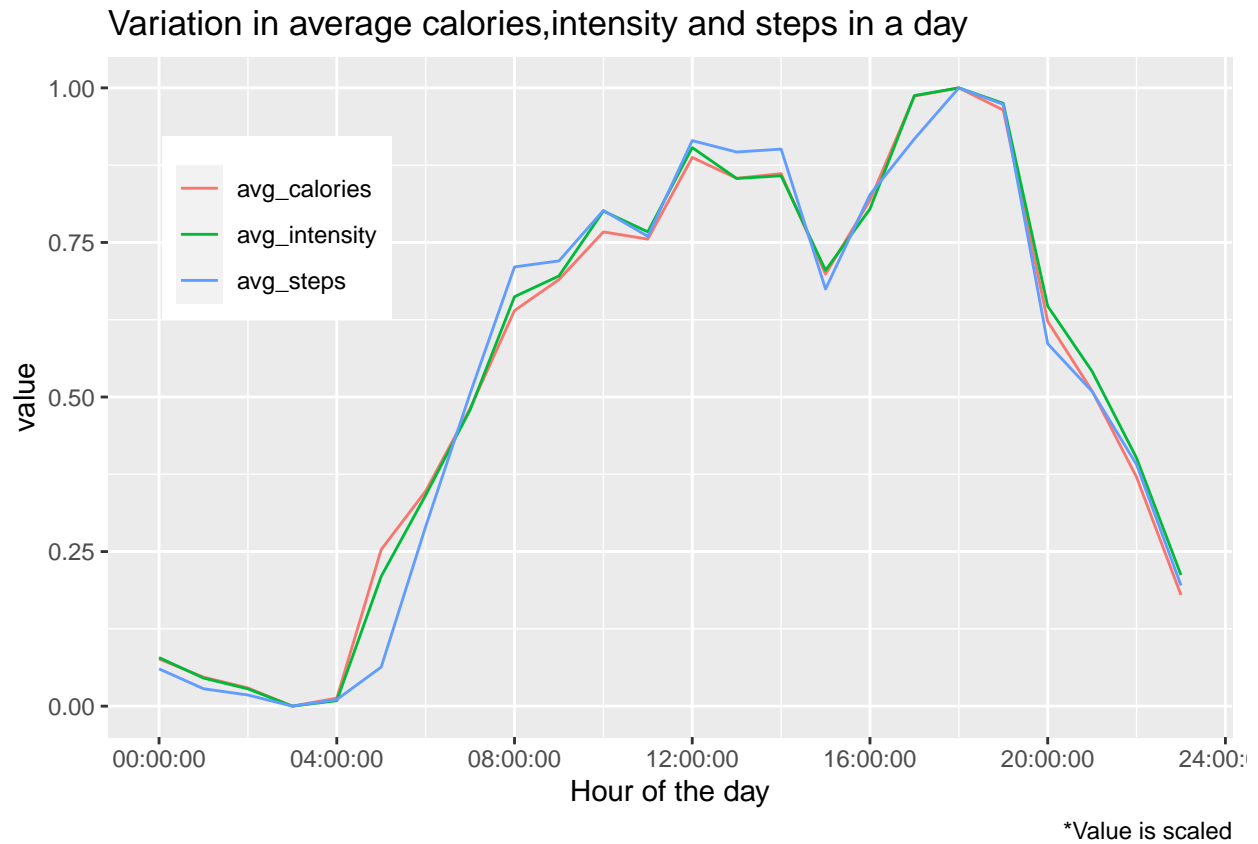
- User sleep most on Sundays.
- Least sleep is recorded on Thursdays.
- The range of time asleep is large for Saturdays and Sundays when compared to other weekdays.

Relation between active time and time asleep.



- There is no correlation between total active time and time asleep.

Activity, Intensity and steps during each hour of a day.



- Users are most active between 4:00 PM and 7:00 PM.

Conclusion

Analysis shows that users are most motivated about healthcare on weekends. The time period which sees maximum activity is between 4:00 PM and 8:00 PM. People are most likely to buy healthcare equipments when they hear about it at this time of high motivation.